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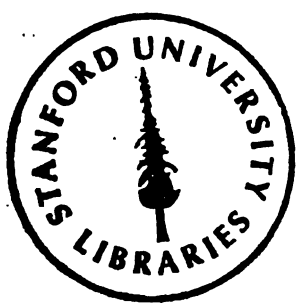
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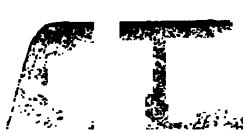

John Winstanley.

MEMOIR

ON THE

RECENT SURVEYS, OBSERVATIONS,

AND

INTERNAL IMPROVEMENTS,

IN THE

UNITED STATES,

WITH BRIEF NOTICES OF THE NEW COUNTIES, TOWNS, VILLAGES, CANALS, AND RAIL ROADS, NEVER BEFORE DELINEATED.

By H. S. TANNER.

INTENDED TO ACCOMPANY HIS

NEW MAP OF THE UNITED STATES.

Philadelphia:
PUBLISHED BY THE AUTHOR.
Mifflin & Parry, Printers.

1829.

E165
T18

Eastern District of Pennsylvania, to wit:

BE IT REMEMBERED, that on the tenth day of July, in the fifty-fourth year of the Independence of the United States of America, A. D. 1829, Henry S. Tanner, of the said District, has deposited in this office the title of a book, the right whereof he claims as Author, in the words following, to wit:

"Memoir on the Recent Surveys, Observations, and Internal Improvements, in the United States, with brief Notices of the New Counties, Towns, Villages, Canals, and Rail Roads, never before delineated. By H. S. Tanner. Intended to accompany his New Map of the United States."

In conformity to the Act of the Congress of the United States, intituled, "An Act for the Encouragement of Learning, by securing the copies of Maps, Charts, and Books to the Authors and Proprietors of such copies, during the times therein mentioned;" and also to the Act entitled, "An Act, supplementary to an Act, entitled, "an Act for the Encouragement of Learning, by securing the copies of Maps, Charts, and Books, to the authors and proprietors of such copies during the times therein mentioned," and extending the benefits thereof to the arts of designing, engraving, and etching historical and other prints."

D. CALDWELL,
Clerk of the Eastern District of Pennsylvania.

MEMOIR, &c.

In presenting to the American public a Map of the United States, differing essentially from those hitherto published, both in its general aspect and local features, it will naturally be expected that some account will be given, of the sources whence I have drawn my information. This I shall do with as much brevity as a satisfactory review of the materials will permit.

Before proceeding with the proposed detail, some remarks on the projection and basis meridian adopted for the map, are deemed necessary to a clear illustration of the subject.

In examining the infinite variety of projections which an investigation of the subject presented, it was an object of importance to select such a one for the present map, as should exhibit the superficial and linear measures in their truest proportion, and preserve an equal length for the diagonals of the rhombs. In order to effect these objects as nearly as possible, recourse was had to the following method.—The number of geographical miles contained in a degree of longitude, on each parallel of latitude, was set off

by a diagonal scale, constructed with the greatest precision; through the points of division curved lines were drawn representing the meridians; when the parallels of latitude were drawn in sections of concentric circles, by radii obtained by extending the lines of longitude, until, by the laws of their decrease, they intersected each other at or beyond the north pole, and thus formed a common centre, from which circular arcs representing the parallels of latitude were described as above-mentioned.

This mode of delineating sections of the globe on a plane is supposed to be, though simple in its nature, a very near approximation to the truth; all the meridians and parallels intersect each other at right angles; the successive quadrilaterals between any two meridians are nearly equal in area, and similar to those on the globe; every parallel of latitude is equally divided by the meridians; and every parallel, as terminated by two meridians on the map, is exceedingly near the same length as the corresponding part on the globe itself: hence it is obvious, that this method preserves the outline and relative position of sections of a sphere as nearly as the reduction of a globular to a plane surface will admit. This projection is said to be much used in France, and we know that Delile and D'Anville have employed it in the construction of their most approved maps. It admits of the application of the simple scale for the admeasurement of distances, to *every part* of the map, and thus obviates the necessity for that multiplicity

of scales which the globular, stereographic and many other projections require.

When a considerable portion of the earth's surface is projected on a plane, by that nondescript method of representing the parallels of latitude by straight lines, the real dimensions, and often the figure and position of countries, are much distorted and misrepresented, especially towards the eastern and western extremities of the map, where the meridians and parallels intersect each other obliquely, so that a quadrilateral space shall often be represented by an oblique-angled rhomboid figure, whose diagonals are very far from equal; and yet we see a simple scale of distances inserted in such a map!

It will be observed that the degrees of longitude are computed east and west of the Capitol at Washington. To the adoption of that point as a first meridian for my map, some persons have objected, as augmenting the number of such meridians, already too numerous, they say. If, by selecting the meridian most generally used for foreign maps, I could have in any measure checked the practice complained of, or have added any thing towards the establishment of a universal meridian, as proposed by La Place,* one of the first geometricians of his age, I should most certainly have contributed my humble efforts in favour of the design. But, until that national feeling, which is inherent in every independent community,

* This universal meridian is 113° 51′ 18″ west of Washington.

shall have been entirely eradicated, there is no reasonable ground to hope for the accomplishment of such an object, notwithstanding the facilities it might afford to navigation, or however desirable in other points of view.

The longitude of Washington from Greenwich has been, in conformity with an act of Congress, recently ascertained by William Lambert, a gentleman well known for his scientific acquirements, whose report on the subject is entitled to the highest confidence. By Mr. Lambert's calculations, the Capitol at Washington was found to be 76° 55′ 30″ to the west of the Observatory at Greenwich. The exact position of our Capital having been thus determined, with a view, on the part of government, to the establishment of a first Meridian for the United States ; and as this object will probably ere long be completely effected, by the erection of an observatory, furnished with suitable instruments and apparatus, by which to lessen our dependence on foreign nations for the elements necessary to be used in astronomical calculations; I felt it incumbent on me to contribute my humble aid towards the introduction into use of the proposed meridian, and therefore selected it as the one best suited to an American map, intended for the use of Americans.

The adoption of a meridian not yet in general use, even in our own country, is the less important as applied in the present instance, as such maps are seldom or never used for the purposes of navigation. In the

construction of hydrographical charts, an adherence to points generally known and recognized by nautical men is, perhaps, both proper and necessary, and should not be wholly abandoned until the new meridian be completely established; which should and would of necessity be effected by slow degrees. In any view of the subject, it must be admitted that the adoption of first meridians in the construction of maps is quite arbitrary. We see that every country, and indeed almost every province, has its first meridian. Spain has no less than eight, if we include that of Toledo: Cadiz, the most in use among navigators; Carthagena; the observatory of the Isle of Leon; the former College of Nobles, at Madrid; the Island of Trinidad; Teneriffe; and the Island of Ferro, the last having been in many instances adopted by D'Anville. For a long time it was customary to reckon the longitude, in most countries, from the Isle of Ferro; but it is now usual to compute it from the metropolis of the country. Thus in France, Paris is the first meridian; and in Great Britain, the Royal Observatory at Greenwich.

Our own country furnishes additional testimony to the correctness of the above remark. Boston, New York, Philadelphia, and Washington, have each had their advocates in the persons of their resident geographers, who appear to have selected a first meridian for their maps, according as their convenience or fancy dictated. This practice, it is hoped, will be entirely abandoned, since the position of our capital

has been determined with sufficient exactness for all geographical purposes. Many circumstances induce the belief that those places will eventually give way to the City of Washington, as the only legitimate point for a national first meridian; its local situation, being nearly in the centre of population, and approximating nearer to that of territory than either of the places above-mentioned, and being also the seat of the general government, are considerations which tend to confirm this impression.

It may not be improper to remark here, that the Observatory at Greenwich lies, as we have seen, 76° 55′ 30″ to the east of Washington; hence it is very easy to reduce the longitude of Greenwich to that of Washington: for, if the longitude required be west, we have only to subtract 76° 55′ 30″ from the longitude of Greenwich, and the remainder is the longitude west from Washington: on the other hand, if the place be east of Greenwich, we obtain the longitude east from Washington, by adding to that of Greenwich 76° 55′ 30″. If the place lies between Greenwich and Washington, its longitude from the latter place will be obtained by subtracting its longitude west from Greenwich from 76° 55′ 30″.

The new map of the United States is founded on, and embraces generally, the valuable and original information, contained in my American Atlas. The maps of the Western States and Territories which form a part of that work, were drawn principally from the government surveys, which now extend al-

most entirely over the states of Ohio, Indiana, Illinois, Missouri, Louisiana, Mississippi, and Alabama, and partially over the territories of Michigan, Arkansas, and Florida.

These surveys are made in half-mile sections, which give to them a degree of correctness seldom attained by any other mode, and, when carefully combined, exhibit a very exact representation of the country. As the public surveys are frequently noticed, a few observations here on the system upon which they are made will perhaps be useful.

All the lines are run by the true meridian, in most instances with compasses of Rittenhouse's construction, with nonius divisions and moveable sights. The variation of the compass is determined every ten or twelve miles on the east and west lines, and every twenty or twenty-five on the north and south lines, by celestial observations, which give the courses of the lines as great a degree of accuracy as can well be obtained by the compass. The chains used by the surveyors are all similar, and adjusted by standards kept in the offices. In surveying uneven or hilly ground the chain is carried horizontally, so as to obtain the true horizontal measure. In this manner the surveys are made in townships, whose sides (limited by true meridians, and parallels to the equator) are each six miles in length; area 36 square miles or sections, each containing 640 acres; each township contains 23,040 acres; a quarter section is a square whose sides are each half a mile, and contains 160 acres.

The corners of each section are distinctly marked by the United States deputy surveyors. The sections are numbered from 1 to 36, beginning at the north-east corner of the township, and going from right to left to the north-west corner, and then returning from left to right to the eastern boundary of the township, and so on, terminating at the south-east corner. The townships are also numbered, commencing at the principal meridians east and west, and on the base line north or south. This mode is uniformly pursued in the survey of all lands belonging to the United States; therefore, whenever mention is made of United States or public surveys, it will be understood to mean those which have been made according to the mode here described. It will be readily perceived, that from the caution used in those surveys, there is no likelihood of any other interference in the lines, than what the necessary convergence of the meridians will produce.

In addition to the great mass of original information embodied in the New American Atlas, important accessions to the stock of knowledge on the geography of the United States have recently been made, by the publication of excellent local and state maps. These having been used in perfecting the corresponding parts of the present map, give to them an appearance very different from all preceding representations.

With a view of acquiring as much additional information as possible, various methods of obtaining

the most recent and authentic surveys, and observations for latitude and longitude, were adopted. One of these resulted in the acquisition of many important facts connected with the subject, and documents regarding the geography of remote sections of our country were communicated by individuals resident in them. A circular letter, of which the following is a copy, inviting fresh information, was extensively distributed among the most intelligent part of the community, and subsequently published in many of the respectable journals throughout the country.

Sir, Philadelphia, June 1st, 1828.

Having nearly completed a large Map of the United States, on a scale of 30 miles to the inch, for which I have, since the publication of my New American Atlas, been collecting and arranging materials; and being ardently desirous of rendering it as perfect as the nature of such a work will admit; I take the liberty of submitting to you the annexed inquiries, to which I would most respectfully and earnestly solicit your early attention. Under a well-founded belief that much additional information, regarding the geography of local districts of our country, might be acquired by a resort to means which have, on former occasions, been adopted by me with signal advantage; I again avail myself of the same mode of inviting the co-operation of intelligent individuals throughout the United States, by whose aid and a firm determination on my part to use my best exertions for the attainment of the object, I trust I shall be enabled to collect and combine many original documents, which now lie comparatively useless in various and remote parts of the country.

With a view of accomplishing this desirable object in its

fullest extent, I engage to grant, to persons requiring it, pecuniary or other compensation for the use of Maps whose delineations are strictly original and of undoubted accuracy. Any maps of this description that may be forwarded, shall be returned to their owners respectively, free of expense and in good order, together with any reasonable compensation for their use that may be agreed on.

The following are the subjects to which I would respectfully call your attention :—

1. Climate, Soil, Productions, and Population of your County.
2. Latitude and Longitude of important points not hitherto ascertained or made known, particularly in the Western and South-Western States and Territories.
3. Recent and contemplated changes in State or County boundaries.
4. Newly organized Counties, with names, position, &c. of their respective seats of justice.
5. Location of new Towns generally, with the population of each.
6. Errors in existing Maps, with suggestions for their correction.
7. Mineral Springs.
8. Minerals, especially such as may be applied to the useful Arts.
9. Projected Canals, Rail and Turnpike roads, and other internal improvements.
10. Distances from place to place along the leading roads, with the most noted public houses.
11. Steam-boat and Stage routes, recently established or contemplated,—and generally to whatever else may in your judgment be deemed important in reference to the object in view.

As it is particularly desirable that the Map be published as early in the ensuing season as its proper execution will

permit, I beg leave to request a prompt answer to the above queries, or to such portion of them as you may find it convenient to communicate.

I am very respectfully yours, &c.
HENRY S. TANNER.

This circular elicited valuable communications, accompanied, in many instances, by manuscript maps of districts, never before or very imperfectly represented on the existing maps. Among these is one of the northern part of Maine, illustrative of the interesting question of boundaries between the United States and British possessions; together with a diagram, representing in profile the altitudes of the most elevated points along the Grand Portage, from the St. Lawrence to Lake Temiscouata. The latter is an important document, as it exhibits in three several places the points of intersection of the Highlands with the boundary between Maine and Lower Canada. This profile and its accompanying map were constructed by order, and for the use, of the commissioners under the Ghent treaty, and add greatly to the information regarding the interesting section embraced by them.

In the following account of the materials used in the construction of the present map, I shall confine myself to such as were deemed strictly original in reference to a general map of the United States, and such as have now for the first time been incorporated into any published map. All other information, it will be recollected, was drawn from the American Atlas, to

which the fresh materials enumerated below, were added in the formation of the new map.

EASTERN STATES.

This section of my map is greatly improved by the insertion of the original matter contained in the map of the boundary line and the profile of the Grand Portage, mentioned above.

The profile of the Grand Portage is inserted in the map, with a view of exposing the unfounded statements of the British regarding the topography of the region traversed by the boundary between Canada and the United States. One of the arguments used to enforce the claims of the British government to the north part of Maine, is founded on the assumption that no highlands sufficiently distinct, to exhibit with precision the line claimed by the United States, exist between "the rivers that empty themselves into the St. Lawrence, and those which fall into the Atlantic Ocean."* By this profile it will be seen that highlands or rather mountains do exist along the entire course of the line, from the sources of Connecticut river to those of Ristigouche. Some of these mountains attain an elevation of 2000 feet above the level of the St. Lawrence.

The map in question together with the profile afford a view of the physical geography of this part of our country, essentially different from its former de-

* Treaty of peace in 1783.

lineations; and completely reverse the general aspect as given to it by the advocates of the British claims. They affirm that the route claimed by the Americans as the line contemplated by the framers of the treaty of 1783, is nearly destitute of highlands, and that mountains of considerable elevation extend westward from Mars Hill, dividing the waters of St. John's river from those of the Penobscot, &c. Such however is not the fact, for we find along the former route a continuous chain of high hills if not mountains, broken, it is true, occasionally by the action of the water; and the latter, with the exception of Mars Hill itself, presenting an undulating surface merely, but little elevated above the surrounding plain. This is the line assumed by Great Britain as the boundary at issue, which is carefully traced on my map. The St. Croix forms a part of the boundary between the United States and British possessions which has been definitely settled. The principal source of the St. Croix was ascertained in the year 1797 by the commissioners of the United States and Great Britain, under the treaty of 1794. In the year 1817 the surveyors of the two governments again marked the point at which a line due north was to commence.— As no other survey has yet been made with special reference to the disputed boundary, its course cannot be stated with precision: enough however is known, to justify the United States government in resisting the extravagant and unfounded claim of the British government. In submitting the disputed points to

umpirage, the government of the United States never contemplated, I apprehend, granting the power to depart essentially from the boundary always claimed by it, and until lately acquiesced in by that of Great Britain. The power conferred on the King of the Netherlands, as umpire in this matter, is unquestionably restricted to the simple adjustment of the boundary in question; nor does it admit of any material variation from the line as defined by the treaty of 1783, and as then understood by all the parties concerned. The treaty, on which alone the United States may rely with confidence, describes the boundary with a precision, so nearly approaching to certainty, as to forbid any misunderstanding with regard to the line, in the mind of a disinterested observer. Other and ample evidence might be adduced in support of the American title to the disputed territory—this can scarcely be deemed necessary, as the treaty is sufficiently explicit and conclusive. All the acts of the British government, from the proclamation of 1763 to the treaty of 1783, recognize the boundary claimed by the United States, as the one which separated the provinces of Quebec and Nova Scotia from the then province of Maine, and declare that the line should "pass along the high lands which divide the rivers that empty themselves into the St. Lawrence, from those which fall into the sea," and that "the province of Quebec is bounded on the south by a line from the Bay of Chaleurs along the high lands, &c.," reciting the precise words that were subsequently

transferred to the treaty of peace in 1783. The treaty however, in letter as well as in spirit, is obviously and decidedly with the American government. On the side of the British, they rest altogether on their vague notions of an *equitable* division of the country, upon which their claim with regard to the north-west angle of Nova Scotia, is founded. This claim places the angle at the point in the line running due north from the source of the St. Croix, which meets the high lands at or near Mars Hill; and according to this view of the subject, the angle thus formed is the commencement, on the east, of the north boundary of Maine, from that point to the westernmost head of Connecticut river. This line along the imaginary high lands, it will be perceived, divides the waters of the Androscoggin, Kennebec and Penobscot from the Aristook, Alaguash, and Wallostook branches of the St. Johns, and deprives the state of Maine of nearly one third of its area or about 12,000 square miles.— The point in the due north line from the St. Croix, which the British affect to believe is the north-west angle of Nova Scotia, and upon which the whole matter rests, is about 40 miles from the source of the St. Croix, and about the same distance from the place where this line, in its prolongation, intersects the St. Johns.

The manuscript map with which I commenced the preceding remarks, enabled me to correct the courses of all the streams and lakes in the northern part of Maine, and also to add several others of considerable

importance, which have never before appeared on any published map: indeed the entire face of the country is so radically altered and improved, as scarcely to be recognized by those who have become familiar with its former imperfect representations. Several maps of this part of Maine, and the adjoining portions of Canada and New Brunswick, have been published in Canada, intended to illustrate the matter in dispute between the governments of the United States and Great Britain; some of these maps have fallen into my hands, and were found to contain the most recent surveys, which so far as they represent the natural features of the country, were deemed sufficiently accurate for all the purposes of a general map.

The remainder of the New England States have been entirely remodelled from the able map of Mr. Nathan Hale of Boston, who actuated by a spirit of liberality, promptly complied with my request for permission to make use of his excellent map.

Mr. Hale's map is constructed on Flamsteed's projection, on a scale of eight miles to an inch; it embodies much original information, contains all the new towns which existed at the time of its publication, and is in every point of view the best map extant of those states collectively; its execution generally does credit to the artist who engraved the map. To Mr. Hale I am also indebted for a communication and printed report on the Massachusetts rail-road, from which the profile of that work contained on the map, was constructed. The report just mentioned was ac-

companied by a series of maps and diagrams giving a complete topographical view of the country traversed by that important work.

Most of the towns in New England which the extension of manufacturing establishments has brought into notice, will be found on my map, as well as several others now first located, including Lowel, Slaterville, Pawtucket, Burrelville, &c.

The New Counties

of New England consist of Merrimac and Sullivan in New Hampshire, and Waldo in Maine.

Internal Improvements.

The most important and extensive work connected with this subject, is the Farmington, Hampshire, and Hampden chain of canals, designed to connect, at some future period, Long Island Sound with Lake Memphremagog in Vermont and Lower Canada. A considerable portion of this work, between New Haven and the Falls of White river in Lebanon N. H. is either completed or in progress. It commences at New Haven, passes along the valleys of Mill Creek and Farmington river and intersects Connecticut river at Northampton ; thence it follows the valley of that river until it reaches the Falls of White river, where the levelling at present terminates. From this point it is proposed hereafter to continue the canal to Lake Memphremagog, along the ravine of Pasumsick river, a distance of 105 miles.

Length of the canals from New Haven to the Falls of White river 205 miles, 72 locks; rise 499 feet, fall 165 feet, total lockage 664 feet : elevation of the Connecticut at White river 334 feet. General course, a little east of north. The Blackstone canal from Providence to Worcester is the next in importance; it leaves the former place and pursues nearly a due north course into the valley of Pawtucket river, which it follows to the town of Worcester, a distance of 45 miles. The Middlesex canal in Massachusetts, which was constructed many years since, completes the list of important works of this kind. It leaves the Harbour of Boston, pursues a north-west course, and joins the Merrimac a short distance above the flourishing village of Lowel ; length 27 miles—30 feet wide at top, 20 feet at bottom, 3 feet deep—rise 104 feet, fall 32 feet, total lockage 136 feet—elevation of the Merrimac at Lowel 72 feet. Other works of a similar nature, but of minor importance, have been constructed to overcome the falls in the Connecticut and some other rivers.

Among the contemplated works in New England, are, 1. A rail road from Boston to the Hudson river opposite Albany; 2. A rail road from Boston to Providence in Rhode Island; 3. A canal from Buzzard's Bay to Barnstable Bay. Some other works of a similar nature, but of less importance, are proposed; a notice of them however is foreign to the object of this work, which is intended to exhibit such works only as are either completed, in progress, or likely

soon to be commenced. The rail road from Boston to Albany, and that from Boston to Providence, are of the latter description; measures having been adopted by the legislature of Massachusetts, in conjunction with some spirited individuals, to ensure their early completion. A profile of the Massachusetts rail road from Boston to Albany, will be found on the map. Starting from the former city, the road assumes a western direction, along the valley of Charles river, through Watertown, Newton, Needham, and Natick, and passes along the ravines of Concord river, by Sherburne, Holliston, Southboro and Grafton, to the town of Worcester; thence through the town of Leinster, and over Grant's summit, in Spencer, into the valley of Chickapee river, which it pursues to Ludlow factory, where the road crosses the Chickapee and enters the town of Springfield. Continuing its western course along the bank of Westfield river, and passing through the towns of Westfield, Russel, Blandford, Chester, and Becket, it ascends Mount Washington, where the road attains its greatest altitude, 1480 feet; thence it descends into the valley of the Housatonic, through Dalton, to Pittsfield. Rising again in the town of Canaan, and crossing the dividing ridge between the waters of the Housatonic and those of the Hudson, it descends the basin of the latter, through Chatham, Kinderhook, and Schoodak, and intersects the Hudson at Castleton landing; whence it pursues nearly a due north course along the left bank of the Hudson to Greenbush opposite Albany.

Length of the road from Boston to the New York state line 160 miles, thence to Albany 40; total distance from Boston to Albany, 200 miles. Altitude at Grant's summit 918 feet; Connecticut, at Springfield, 38; and at Mount Washington 1480 feet above the Atlantic ocean. General course W. N. W.

The road to Providence leaves Boston, passes through the towns of Roxbury, Dedham, Walpole, Foxboro, and across Sekonk plain and cove to India bridge in Providence; length 43 miles; ascent 381½ feet; descent 378 feet; difference of level between Boston and Providence 3½ feet. General course S.S.W.

The improvement of the Connecticut river, required charters from four states interested in it; and it was only in the year 1828, that the necessary powers were granted, so that the actual commencement of the work has been much delayed. A part of it, at Enfield's falls, has been begun, a short canal 70 feet wide being now in a course of execution, and it is expected, that ere long, about 90 miles of the river will be improved.

STATE OF NEW YORK

Is reduced from the map of that state, contained in the American Atlas, to which is added the information afforded by Duy's map of the northern part of the state; Col. Long's map of the projected national road from Washington to Buffalo; map of the boundary made by the commissioners under the treaty of

Ghent; and by a personal inspection of the country, between Albany and the Falls of Niagara, during a tour made for the purpose in 1827. Many improvements will be perceived along the Erie canal, and numerous towns located which have never before appeared on any map.

New Counties.

Counties.	*Seats of Justice.*
Erie,	Buffalo,
Orleans,	Albion,
Monroe,	Rochester,
Wayne,	Lyons,
Livingston.	Geneseo.

New Towns.

Glennville, S. Granville, Lake Pleasant village, Northampton, Cranberry, Remsen, Lawyersville, Union, Eddyville, Sidney plains, Strasburg, Clarksville, Butternuts, Newark, Tioga Co., Smithsville, Elmira, formerly Newtown, Hornetsville, Orshun, Tanessassah (Friends' settlement), Franklinville, Rushford, Sinclairsville, Westfield, Forestville, Springville, Aurora, Erie Co., Williamsville, Tonnewanta, Pendleton, Ransom's grove, Cambria, Gainesville, Albion, Clarkson, Perry, Gardous, Portage, Farmer, Oswego Falls, Holly, Amber, Sullivan, Taberg, Pulaski, Wardsville, Naples, Adams, Turin,

Oxbow, Port Madras, Fordsville, De Kalb, Louisville, Moira, Salmon R. Keesville, Middleport, Wrightsville, Newark, Weedsport, Geddesburg, Lenox, Vernon.

Internal Improvements.

Extensive and highly important works, connected with the internal improvement of this state, are completed and in active operation, and some others are proposed. The first, and by far the most important, is the Erie canal, extending from Albany, on the Hudson river, to Buffalo on Lake Erie. Its general course from Albany is a little north of west. Leaving Albany it passes along the right banks of the Hudson and Mohawk, crossing the latter at Middletown: following the left or north bank of the Mohawk about 12 miles, it re-crosses that river over what is termed the "upper aqueduct;" pursuing the south bank of the Mohawk through Schenectady, Schoharie, Canajoharie, and Little Falls village, it enters the flourishing town of Utica, 108 miles, by the canal, from Albany. Continuing its course by Whitesboro, Rome, Lenox, Syracuse, Jordan, Montezuma, Lyons, Palmyra, Pittsford, to Rochester (distant 160 miles from Utica), where it crosses the Genesee by a splendid aqueduct, built of hewn stone, and supported by eleven arches. From Rochester the canal assumes a more western direction until it reaches Lockport, after passing the towns of Brockport, Al-

bion, Middleport, and some other "*ports*" of lesser note; distance from Rochester to Lockport 63 miles. At Lockport, the canal ascends the mountain ridge, by five double combined locks, each 12.4 feet rise. Nine miles from Lockport, the canal enters Tonnewanta creek, at the little village of Pendleton, from which to Tonnewanta village, situated at the mouth of the creek, and distant from the former about 10 miles, the canal is identified with the Tonnewanta. At a farther distance of 12 miles, this magnificent work terminates, at the town of Buffalo. Entire length of the Erie canal 362 miles; 60 feet wide at top, 40 at bottom, and 4 feet deep; 83 locks on the main canal; total lockage 688: declivity from Buffalo to Rochester 4 feet; rise 630 feet, fall 62 feet, total rise and fall 692 feet. A profile of the Erie canal is inserted on the map.

Champlaine canal. From its junction with the Erie canal, eight miles from Albany, the Champlain canal pursues its course through Waterford, Stillwater, and Bemus' Heights, along the right bank of the Hudson, to within three miles of Fort Miller, where it takes the river for three miles. At Fort Miller Falls is a canal of half a mile in length, and then again it takes the river 8 miles to Fort Edward, from which place the canal pursues a north east course to Whitehall, after passing the villages of Sandy Hill, and Fort Ann. Length of the Champlain canal from its junction with the Erie canal to Whitehall 63½ miles; 60 feet wide at top, 40 feet at bottom, 4

feet deep, 18 locks; rise 92½, fall 54 feet, total lockage 146½ feet: elevation of Lake Champlain above the Erie canal, at the junction, 38½ feet.

The Hudson and Delaware Canal commences at Eddyville on Hudson river, passes the towns of Kingston, Marbletown, Mombacus, and Warwasing, in Ulster county, along the valleys of the Rondout, Batten Kill and Nevisink river, to Carpenter's point on the Delaware: general course from Eddyville and Kingston to the Delaware, south-west. Length 64 miles; ascent 535, descent 80 feet, total lockage 615 feet.

The Lackawaxen canal is a prolongation of the Hudson and Delaware canal, 17 miles of which is in the state of New York, and 36 miles in Pennsylvania, making its entire length from Carpenter's point to Keen's mill, 53 miles. From Carpenter's point along the left bank of the Delaware to the mouth of the Lackawaxen, where the canal crosses the Delaware, rise 148 feet in 17 miles; from the mouth of Lackawaxen to Keen's mill, rise 668 feet in 36 miles; total rise, 816 feet in 53 miles. The Oswego canal commencing on the Erie canal near Syracuse in Onondaga county, passes along the valley of, and nearly parallel to, the Onondaga river into Lake Ontario, through the villages of Liverpool, Three River point, Oswego Falls and Oswego, on the right bank of the river; general course from Syracuse north-west: length 38 miles.

The Seneca canal connects the Seneca and Cayuga lakes with the Erie canal, which it leaves at

Montezuma, passing through Waterloo, the seat of justice of Seneca county, and along Seneca outlet, to Geneva: course from Montezuma, south-west: length 20 miles. All the above canals are completed and in successful operation. The following summary exhibits the aggregate length of canals now finished, in the state of New York:

Erie canal	362 miles.
Champlain canal	63½
Hudson and Delaware canal	65
Lackawaxen canal	17
Oswego canal	38
Seneca canal	20
Total	565½

In addition to these, other canals and rail roads of considerable magnitude are projected: among the former is the Chemung canal, which is intended to connect Seneca lake with the Susquehanna, at Elmira, and ultimately with the Susquehanna division of the Pennsylvania canal. A navigable feeder extending from the Painted Post along the Tioga river, is also proposed: length of main canal from Salubria to Elmira about 26 miles: length of feeder 25 miles.

A rail road of about 16 miles in length is proposed from Albany to Schenectady, with a prospect of its speedy completion. It is also intended to connect the Erie canal with Black river of Lake Ontario.

STATE OF NEW JERSEY.

This portion of my map, as well as the adjoining parts of New York and Pennsylvania, is from the able and scientific map of Thomas Gordon, which is projected and drawn on a scale of three miles to an inch, and is exceedingly minute and particular. This admirable map, which must have cost its author much time and money, was compiled partly from surveys made by Mr. Gordon, combined with others collected by him during the progress of his work, and published in 1828. This as well as every other good state map with which I am acquainted, has failed to reimburse the expenditure of its enterprising author; the spontaneous sales of the map, and the limited patronage bestowed on it by the Legislature of New Jersey, being, as I learn, entirely inadequate. The complete failure, and in some cases, utter ruin of those who have undertaken the construction of original state or more local maps, unaided by governmental patronage, should admonish novices in such matters, to calculate well the cost before they attempt to bring forward large and expensive maps, which, if properly executed, cannot fail to involve them in expenses of which few, who are not experimentally acquainted with the subject, can form a just idea. State maps, or indeed local maps of any kind, whose sales must necessarily be limited, should be done by the public authorities. No individual, unless he is

possessed of resources which place him above the drudgery and labour inseparable from the faithful execution of a good map, should, without mature consideration, undertake the construction of a work of this sort; he will either injure himself in the attempt to do justice to his subject, or, impelled by the want of adequate funds, send forth an imperfect work, at once injurious to himself and discreditable to his country. Fortunately for the map of New Jersey, its author's means, (if we may judge from the evidence afforded by the map itself,) were more ample than those of most others engaged in similar pursuits.

Several of the states have contributed either wholly or partially, their aid in bringing forward authentic maps, which, as they present examples worthy of imitation, I shall, although perhaps somewhat out of place, here briefly notice. About the year 1806, the Legislature of New Hampshire passed an act, granting to Philip Carrigain five thousand dollars, to enable him to collect and combine materials and publish a map of that state. To this sum was subsequently added another, the amount of which I have at present no means of stating, to relieve him from some embarrassments into which his zeal in the prosecution of his duty had led him. He was thus enabled to complete, satisfactorily, a valuable map, which, without the liberal and well-timed interposition of the legislature, would probably have remained unfinished to the present hour.

The map of the state of Maine with its accompanying description and Atlas, by Moses Greenleaf, a work that cannot fail to augment the reputation of its scientific author; the excellent map of Connecticut by Warren & Gillet, and that of the state of New York by Simeon Dewitt, were each patronized by special enactments of the Legislatures of those states respectively, to what amount I cannot state with precision, but from the style of their execution I infer that each was liberally sustained by the proper authorities. The Legislature of Pennsylvania in 1816 passed an act requiring the Secretary of the Commonwealth and Surveyor general, to contract with competent persons for the formation of a map of each county of the state, with a view to the construction of a general state map. Accordingly maps of the several counties were furnished, mostly by the county surveyors ; and John Melish was appointed compiler and publisher of the contemplated map. The materials thus prepared and furnished by individuals, each of whom conducted his own surveys without regard to those of his neighbour, presented a mass of discordant and incongruous elements, which set all the known rules of combination at complete defiance. Such conflicting materials could not fail to embarrass and perplex the most experienced draftsman. In uniting these heterogeneous elements, it was necessary in some cases to curtail, in others to extend their dimensions ; and as it is not always possible, to determine on which to place the most reliance, the consequence will be that

the relative position or form of counties will in some measure be distorted. From these fruitful sources of error, combined with the entire absence, in several of the county maps, of the necessary indication of the magnetic variation, have arisen those errors in some of the county boundaries, and important streams, which the recent surveys for canal purposes, have exposed. Without unity of action on the part of the surveyors; without the establishment of general bases of any sort, and without those other scientific and judicious arrangements which should always precede and are indispensible in the commencement of works of such importance, a perfect map could scarcely be expected. Liberal appropriations were made from time to time by the Legislature, during the progress of this work, which including every expense attending its execution and publication, amounted to nearly $70,000. By a late resolution of the Legislature the agents for the sale of the map were directed to reduce its price from $12. to $5. at which it is now sold. This measure, while it displays a liberal policy on the part of the Legislature, is calculated to injure those who are engaged in the publication of similar works and dependent on their individual resources only, by fostering the idea that maps can be furnished at prices far below what are usually charged for them. Persons who argue thus forget that the entire expenses of the state map were defrayed from the funds of the state, and perhaps are unaware that the commonwealth actually sustains a loss on every copy of

the map that is now sold, the costs of transportation, commission and other incidental expenses being paid out of the state treasury. It is therefore obvious that a general diffusion of geographical information, and not profit, was the object of those who promoted the publication of this costly map.

A copy of the state map has been presented by order of the Legislature of Pennsylvania, to each state of the Union, and a similar course has been adopted by the Legislature of New Jersey.

The next work of importance is the splendid map of Virginia, projected on the most scientific principles, and drawn on a scale of five miles to an inch by Herman Boye. The surveys used in this map were made expressly for the purpose, in conformity to an act of the Legislature, under the direction, in the first instance, of John Wood, at whose decease the general superintendence of the map, was assumed by Mr. Boye, a gentleman every way qualified to do ample justice to the work; under whose direction the surveys were continued and completed. A second map projected on a scale of ten miles to an inch was also prepared by Mr. Boye, which together with the nine-sheet map just mentioned, was published in 1828. The entire expense to the state of these valuable and highly important works exceeds $80,000, a sum which no efforts on the part of the publisher can ever reimburse. Nor is it expected, the object like that of Pennsylvania, being to disseminate a correct knowledge of the state.

The Legislature of South Carolina, in imitation of these laudable examples, has produced a map of the state, that must confer lasting honour on the promoters of the work as well as the state at large. It is drawn on a scale of six miles to an inch, by John Wilson, late civil Engineer of South Carolina, and well known in Pennsylvania as the scientific and accomplished engineer of the Philadelphia and Columbia Rail Road. Celestial observations were taken preparatory to the execution of this map, which, together with the surveys, engraving, &c. cost the state upwards of $90,000. These are the principal cases in which maps have been produced under legislative patronage. Others however, of a more humble character, might be cited, but enough has been done to convince those who are unacquainted with the difficulties and expenses incident to the construction of original maps, that good works of this description, cannot be produced without great expense of time and money.

Warren. is the only new county erected in New Jersey within the last few years. Belvedere is the seat of justice.

New Towns.

Augusta, Stillwater, Alamuche, Newtown, Warren Co., Pittstown, Columbus, Pemberton, Cropwell, Absecum, Smithville, Washington, Burlington

Co., Williamsville, Tom's river, Prospertown, N. Prospect, Boardville.

Internal Improvements.

Many efforts have been made by the friends of internal improvement, to infuse into the legislature of this state some of the spirit of improvement which animates her sister states; hitherto, however, they may claim the rare merit of having manfully and successfully resisted its approaches. Except in the single instance of the Morris canal, which is the work of a joint stock company, no canal or other work of consequence is to be found in the state of New Jersey. Abortive attempts to construct a canal from the Delaware to the Raritan have been made from time to time, but from the operation of local interests or some other cause, the commencement of this important link in the great chain of inter-communication has been so often deferred, that all hope of its speedy execution has become nearly extinct. Even the route of this necessary work remains undecided up to the present moment. Surveys have been made, and the practicability of its execution fully and satisfactorily demonstrated.

It only remains with the legislature to sanction the work, and ample funds can, no doubt, be procured. In deciding on the route and dimensions of a canal which must form an important part of the extensive system which will ultimately embrace within its

lines, the entire region of the organized states, all consideration of individual interest should be entirely disregarded. It is emphatically a national work, and as such should be located and constructed, with special reference to those national uses, from which its revenue must in a great measure be derived, and upon which its success will mainly depend. Viewed in this light, the shortest practicable route should be adopted for the canal, and its capacity rendered fully adequate to all the purposes of such a work. If the canal be thus completed, its advantages and consequent revenues, in the event of war more especially, must be incalculable. But if, like most other works of the kind, it is to yield to every local interest, or made subservient to views of individual aggrandizement, and its length thus unduly extended, its capacity circumscribed, and its usefulness limited to the mere wants of its immediate vicinity, by false notions of economy, the proprietors will look in vain for such an adequate interest on their investments, as under a more liberal and enlightened policy, they would have a just right to expect. Two routes for such a canal have been reported by engineers employed for the purpose; the first is proposed to commence at Lamberton, and pursuing a line nearly parallel to and from ½ to 1½ miles south of the direct turnpike road leading from Trenton to New Brunswick, terminates at the steamboat wharf below the latter city; length 29 miles, summit level (27 miles in length) 65 feet above the ordinary flood tide; surveyed by J. Randall.

No. 2. commences on the Delaware below Lamberton, and thence passes through Trenton, the Lawrence meadows, and along the valleys of Stoney brook, and Millstone river, to a point near the junction of the latter with the Raritan, and thence along the valley of the Raritan river to New Brunswick: length 41 miles; summit level 48 feet; recommended by Messrs. Wright, White, and Beach. To these another is added:

No. 3. commencing in the vicinity of Bordentown, and passing through or near the villages of Sand Hills, Centreville, Hightstown, Cranberry, and along the valleys of Manalapan and South river to Washington, where a canal of one mile connects the latter with the Raritan. This route, unless it should appear, after a careful examination of the ground, that the necessary lockage would greatly exceed that of the preceding route, is for national purposes decidedly the most elegible in every point of view: its actual length would not exceed that of No. 1.; it would be 12 miles less than No. 2., and would avoid the difficult navigation of the Delaware from Bordentown to Trenton, and also that from Brunswick to the point of union of the Washington canal with the Raritan. A single glance at this part of the map will elucidate more fully the proposed route. The advantage in regard to the distance from Philadelphia to New York, as well as the saving of time consumed in a circuitous navigation, will be rendered more apparent by the following comparative view:

First Route.		*Second or Millstone Route.*		*Third Route.*	
	Miles.		Miles.		Miles.
From Bordentown		Bordentown		Bordentown to	
to Lamberton,	5	to Lamberton,	5	Washington	
Brunswick,	29	Brunswick,	41	Canal,	29
Washington canal	6	Washington canal	6		
	40		52		

Thus we perceive that the first route is 11 miles, and the second, or Millstone route, is 23 miles longer than No. 3., or nearly double the length of the direct line from Bordentown to the Raritan.

The time consumed in navigating

No. 1. will be about 13 hours.
No. 2. 17
No. 3. 9½

From these elements we find that a person navigating No. 3. will reach his place of destination 7½ hours earlier than by No. 2., and that the entire transit from one of the assumed points to the other, may be accomplished, by that route, at all seasons, by day light. These considerations, taken in connexion with the disadvantages, which every where attend circuitous and tedious canal routes, and which will be encountered and perpetuated in the present instance, by an injudicious location of the proposed work, should induce those who may be entrusted with its execution, to select the shortest practicable route, as the one best calculated to accomplish all the objects of its construction.

The Morris canal, above mentioned, is progressing slowly towards completion. It commences at Jersey city, opposite New York, pursues a circuitous route through the Bergen marshes, and crossing the Hackensack and Passaic rivers a short distance above their discharge into Newark bay, enters the flourishing town of Newark. Here the canal assumes a course nearly north, which it maintains to Paterson, passing the village of Bloomfield. After leaving Paterson, its course is nearly south-west to the Little Falls of Passaic, where it crosses that river, and thence pursues a more western direction, through the little town of Powerville into Rockaway valley; still continuing its western course along the valley of the Rockaway, until it enters the township of Roxbury, it ascends the summit level two miles north-west from Drakesville. From the summit at Hopatcong pond, the canal is carried along the left bank of Musconetcong river, which it crosses one and a half miles south-west from Andover Forge; thence assuming a south-west direction, it passes near the villages of Hackettstown, Beatystown, Anderson, Mansfield, Broadway, and New Village, and terminates on the Delaware at Philipsburg, opposite Easton. General course from New York to Easton, west: length 100 miles; ascent 915, descent 754 feet, total rise and fall 1669 feet, overcome by locks and inclined planes. Elevation of Easton 161, and summit level 915 feet above the Atlantic.

STATE OF PENNSYLVANIA.

This section is compiled from the map of Pennsylvania contained in the New American Atlas, which was drawn from the state map, by special permission of the Legislature. No changes of county lines nor any new counties have been recently made in this state. A few new towns have been inserted.

The positions of Philadelphia and New York as deduced from the results of several observers, by Mr. Thomas Gordon, preparatory to the construction of his able map of New Jersey, were adopted by me in adjusting the corresponding points on my map. These observations being considered of primary importance in connecting the topographical detail, and as it is probable that no other document exists which combines so many results, I was induced to depart from my plan of excluding elementary and technical matter, by giving them *in extenso*, as follows :—

PHILADELPHIA.

(*Centre of the State-House Square.*)

Latitude.	*Longitude.*			
o / //	o / //			
39 56 54	75 8 45	D. Rittenhouse,	1769, Am. Phil. Tr.	i. p. 21
39 56 55		D. Williamson,	1769, do.	52
	75 8 30	O. Ewing,	do.	
	75 8 45		do.	53
39 56 30	75 9 15	A. Ellicott,	do.	67
	75 9 15	Smith,	1770, do.	118
39 56 55	75 11 30	Edinburgh Encyclopædia.		
39 57 02	75 9 15	De Ferrer,	1806, Am. Phil. Tr.	vi. 297
	75 11	do.	1808, do.	355
	75 10 06	do.	1808, do.	359
39 56 51	*75 10 05*	Mean.		

Latitude.	*Longitude.*	
° ′ ″	° ′ ″	
39 56 55	75 9 00	assumed as correct,
		or,
39 57 00	75 9 00	for the State-House—
	76 55 30	Lambert—for Washington.
	1 46 30	E. of Washington.

NEW-YORK.

40 42 06	74 00 45	Battery. Am. Phil. Trans. vol. vi. p. 158.
40 42 40	74 00 45	St. Pauls. De Ferrer, 1806. do. 269
40 42 40	74 00 45	by Solar Eclipse, 1806. Bowditch.
	74 00 45	De Ferrer, 1808. Phil. Trans. vol. vi. 360
40 42 55		City Hall, Surveyor-Genl. 1809.
40 40	73 58 37	Edin. Encyclopœdia.
40 42 45	74 00 00	City Hall. Nash, 1817. Diary, 1820.
40 42 43	73 59 46	do. J. Beach, 1817.
	74 3 27	Columbia College, Renwick & Sabine.
40 42 43	74 3 21	do. Renwick, Sol. eclipse, 1823.
		Assumed—
40 42 40	74 00 45	for St. Paul's,
	76 55 30	for Washington—Hence
	2 54 45	St. Paul's E. of Washington, and
39 57 00	1 46 30	State-House, Philada.
0 45 40	1 8 15	Difference, which by Sp. Trig. gives 79.71 miles.

Internal Improvements.

With respect to this subject our maps have undergone great changes within the last five years. During this period, most of the state works have been commenced and partially completed; they consist of: No. 1. The Transverse Division of the Pennsylvania

Canal; No. 2. Susquehanna or Middle Division; No. 3. West Branch Division; No. 4. Delaware or Eastern Division; No. 5. Pittsburg and Erie or Western Division; No. 6. Columbia Rail Road. The following are the works belonging to joint stock companies; No. 7. Schuylkill Navigation; No. 8. Union Canal; No. 9. Lehigh Navigation and Mauch Chunk Rail Road; No. 10. Lackawaxen Canal and Rail Road; No. 11. Conestoga Canal. Besides these a considerable portion of the Chesapeake and Ohio Canal is proposed to pass through the south-western part of this state.

No. 1. *Transverse Division* of the *Pennsylvania Canal* and *Portage* commences at Columbia, on the east bank of the Susquehanna; following that bank and passing through the villages of Maytown, Bainbridge, and Falmouth, intersects the Union Canal at Middletown; thence it continues along the east bank of the Susquehanna, through Highspiretown and Harrisburg to Duncan's Island, at the head of which the canal crosses the Susquehanna, and enters the valley of the Juniata, which it pursues mostly along its north or left bank, and passing Millerstown, Mexico, Mifflin, Lewistown, Huntingdon and Petersburg, terminates at Frankstown, where it is probable the Rail Road across the Allegheny Mountain will commence. In its course from Frankstown to Johnstown a distance of about 40 miles, the Rail Road attains an altitude of nearly 2300 feet above the Atlantic Ocean. At Johnstown the canal is resumed and fol-

lows the valley of the Conemaugh or Kiskiminitas, through the towns of Blairsville, Saltzburg, &c. to the Allegheny, which is crossed a few miles above Freeport. From the mouth of the Kiskiminitas to the town of Allegheny opposite Pittsburg, the canal extends along the right or west bank of the Allegheny, crosses the latter at Washington street, and passing through the city of Pittsburg by the ravine of Suke's Run, enters the Monongahela a short distance above its junction with the Allegheny : general course west-northwest. Length from Columbia to Pittsburgh 322 miles. Ascent to Frankstown 910 feet; to summit of rail road, 1381 feet; total ascent 2291 feet: descent from summit to Johnstown 1137 feet; to Pittsburg 476 feet; total descent 1613 feet: entire ascent and descent 3904 feet.

No. 2. *Susquehanna or Middle Division*, commences at the head of Duncan's Island, passes along the west bank of Susquehanna, by Liverpool, Selin's Grove, &c. and unites with the West Branch canal at Northumberland. Distance from Duncan's Island to Northumberland 39 miles; ascent 86 feet. From Northumberland by Danville, Bloomsbury, Berwick, Wilkesbarre, Tunkhannock and Towanda to the New York state line above Tioga point; distance 165 miles, ascent 337 feet. Entire length from Duncan's Island to Tioga point 204 miles; ascent 423 feet.

No. 3. *West Branch Division* commences at Northumberland, passes along the left bank of the west branch of Susquehanna, through Milton, Pennsboro,

Williamsport, and Jersey Shore to Dunnstown, beyond which its location has not been extended. Length from Northumberland to Dunnstown, 70 miles; ascent 109 feet.

No. 4. *Delaware or Eastern Division* commences at Bristol on the Delaware, 18 miles above Philadelphia; crosses by a pretty direct route, the neck formed by the great bend of the Delaware, to Morrisville; thence it follows the west bank of Delaware river, through Yardleyville, Brownsburg, New Hope, Lumberville, and Monroe, and unites with the Lehigh Company's works at Easton. Length from Bristol to Easton 60 miles; ascent 170 feet, general course north-north-west.

No. 5. *Pittsburg and Erie or Western Division* is intended to unite the Ohio river at Pittsburg with Lake Erie at the town of Erie: very little progress has as yet been made in this work, about 8 miles of the main trunk, and a feeder of 10 or 12 miles in length being all that is completed. The route of the remaining part is not yet determined. Distance from Pittsburg to Erie 168 miles; ascent and descent 852 feet; general course nearly due north.

No. 6. *Columbia Rail Road* commences at Philadelphia, crosses the Schuylkill above the village of Mantua, passes Paoli, Downingstown, Coatsville, Lancaster, and Mount Pleasant to Columbia on the Susquehanna, where it joins the Pennsylvania canal: length from Philadelphia to Columbia 83½ miles, greatest altitude 599 feet; elevation of Columbia above the

Atlantic Ocean 226 feet; general course nearly west. Twenty miles at each end of this work are under contract and now in course of execution.

All the preceding works are the property of the state, and with the exception of the western division, are either completed, in progress, or under contract.

Entire length of the above.

Transverse or Columbia and Pittsburg division,	322 miles.
Susquehanna or Middle division,	204
West Branch division,	70
Delaware or Eastern division,	60
Western division, as far as completed,	20
Columbia rail road,	83½
Total,	759½ miles.

No. 7. *Schuylkill Navigation*, consisting of pools and canals, commencing at Philadelphia, passes through Manayunk, Norristown, Pottstown, Reading, Hamburg, and Pottsville, and extends to Port Carbon, at the junction of Mill creek with the Schuylkill; length from Philadelphia to Port Carbon 114 miles; 125 locks, each lift locks, 17 by 80 feet; ascent 620 feet; canal 36 feet wide at top, 24 at bottom, 3 feet deep. General course north-west; average ascent 5.64 feet per mile.

No. 8. *Union Canal*, extends from the Schuylkill to the Susquehanna; it leaves the former at a point two

or three miles below Reading, passes along the valleys of the Tulpehocken and Swatara, and through Bernville, Womelsdorf, Myerstown, Lebanon, and Hummelstown, to Middletown, on the Susquehanna: length from Reading to Middletown 80 miles, 36 feet wide at top, 24 at bottom, 4 feet deep; ascent 311 feet descent 192 feet, 95 locks, each 8½ feet wide and 75 feet long; entire lockage 480 feet. A navigable feeder has been constructed, which leaves the Union canal at its junction with the Swatara, and follows the valley of that stream to Pine Grove, a distance of about 23 miles in a north north-east direction.

No. 9. *Lehigh Navigation*, consisting of 37 miles of canals, and 10 miles of slack water pools; commences at Easton at the mouth of the Lehigh, passes along its valley, and through Bethlehem, Allentown, Lehigh Water Gap, and Lehighton, to Mauch Chunk, and there unites with the rail road leading to the coal mines: length of canals and pools 47, rail road 9 miles, total 56 miles: width of canals at top 60, at bottom 45 feet, depth of water 5 feet; ascent from Easton to Mauch Chunk 364 feet; 57 locks including lift and guard locks, 8 dams, locks each 22 feet wide and 100 feet long: general course north-west. The improvements in the Lehigh river, above Mauch Chunk, are for a descending navigation only.

No. 10. *Lackawaxen Canal and Rail Road.* That portion of the Lackawaxen canal, which is in Pennsylvania, commences on the Delaware at the mouth of Lackawaxen creek, passes up its valley to a point

about 2½ miles south of Bethany, where it unites with the rail road, leading to the coal mines, at Lackawannock mountains: length from the Delaware to its junction with the rail road, about 24 miles, length of rail road 9 miles, total 33 miles; general course west north-west. (See New York canals.)

No. 11. *Conestoga Canal* opens a navigable channel from the city of Lancaster to the Susquehanna: length 18 miles; general course from Lancaster, south-west.

No. 12. is that portion of the *Chesapeake and Ohio Canal*, which traverses the south-west section of Pennsylvania, commencing on the state line at its intersection with Wills creek: the canal is intended to pass along the valley and to the head water of that creek; thence passing the Alleghany mountain by a tunnel of rather more than four miles in length, it enters the valley of Casselmans river, which it pursues to its junction with the Youghiogeny. At this point the canal assumes a course towards the north-west, along the valley of the latter river, which is maintained until it intersects the Monongahela valley, about 20 miles above Pittsburg, where the canal is to terminate: length of the Pennsylvania section from the state line at Wills creek to Pittsburg, 151 miles. (For the entire length, ascent, descent, &c. of this canal, see Internal Improvements, under article Maryland, &c.)

Aggregate length of canals and rail roads in Pennsylvania, either completed or in progress.

State works as above,	759½ miles.
Schuylkill navigation,	114
Union canal,	80
Pine Grove canal,	23
Lehigh navigation, and Mauch Chunk rail road,	56
Pennsylvania section of the Lackawaxen canal and rail road,	33
Conestoga canal,	18
Chesapeake and Ohio canal, (Pa. section,)	151
Total,	1234½ miles.

CONTEMPLATED WORKS.

A canal from Pittsburg along the Ohio, Beaver, Mahoning and Cuyahoga rivers, to intersect with the Portage summit of the Ohio canal. A canal from the coal mines of Tioga county along the Tioga, to intersect with western feeder of the Chemung canal, at Painted Post. A canal from Easton along the west bank of the Delaware to Carpenter's Point, where the Hudson and Delaware canal enters with the Lackawaxen canal. These works, it is probable, will be constructed at some convenient season, especially that first mentioned, the importance of which cannot be too often pressed upon the people of Pennsylvania.

Other works are in contemplation, but the prospect of their speedy execution is exceedingly slender.*

STATES OF MARYLAND AND DELAWARE.

The Maryland section of my map was reduced from the American Atlas, with the addition of a few new towns, &c. The state of Delaware is entirely from new materials, which were collected and very liberally communicated by Mr. Gordon, the author of the map of New Jersey noticed above. Great changes will be observed in the configuration of Delaware Bay, which assumes an appearance widely different from its representation in all other maps or charts. It is drawn from actual surveys made both in Delaware and New Jersey and therefore deserves the utmost confidence. The site of the Breakwater now constructing near Cape Henlopen, will be found in the map. There are no new counties in these states, and but few new towns.

Internal Improvements.

Extensive and highly important works connected

* The attention of the public has lately been invited by an ingenious writer of New York, to a Great Rail Road by which he proposes to connect the canals and navigable waters of the states of New York, Pennsylvania, Ohio, Indiana, Illinois, &c. and in direct reference to which he suggests the propriety of constructing all future improvements of this nature, coming within the range of this stupendous work.

The proposition is new, and deserves the favourable consideration of the community.

with this subject are now in active progress; they consist of the *Chesapeake and Ohio Canal*, designed to connect the Potomac at Georgetown with the Ohio at Pittsburg. After leaving Georgetown, the canal pursues the valley of the Potomac, along its eastern or left bank, and passes through the towns of Harpers Ferry, Williamsport, Hancock and Old Town, to Cumberland; thence it follows the valleys of Wills Creek, Casselmans, Youghiogeny, and Monongahela rivers, through Connelsville and M'Keesport, to Pittsburg in Pennsylvania. Distance from Georgetown to the Pennsylvania state line at its intersection with Wills Creek, 189 miles. From that point to Pittsburg 151 miles. Entire length of the canal from Georgetown to Pittsburg 340 miles—48 feet wide at top, 33 at bottom, 5 feet deep: 240 locks between Georgetown and Tunnel, 158 between Tunnel and Pittsburg; total number of locks, 398. Ascent 1898, descent 1255 feet, entire lockage 3153 feet; 1 tunnel of 4 miles 80 yards in length; elevation of Pittsburg 678 feet; general course, north-west. A profile of this work is inserted in the map; a part of the eastern section is now in progress.

No. 2. *Baltimore and Ohio Rail Road* commences at Baltimore, passes along the valley of the Patapsco by Parr's spring to the point of rocks, beyond which its course is not yet traced. As the location of this work is not yet decided, beyond the point of rocks (about 65 miles from Baltimore), its course cannot be defined. It is probable that the road will pursue

the route of the Ohio and Chesapeake canal, as far as Cumberland, but as to its course beyond this, and regarding its point of intersection with the Ohio, I am entirely in the dark. It was my intention to construct a diagram, representing in profile, this interesting and important work in its entire course; but the failure of those upon whom I depended for the requisite data, to comply with my requests, has prevented that full view of it which I was desirous of giving.

No. 3. *Chesapeake and Delaware Canal*, commences at Delaware city, on the Delaware river, about six miles below Newcastle, passes through St. George's meadows and mill pond, and along the ravine of Broad creek, into Bush creek, a tributary of Elk river, which empties itself into Chesapeake bay: length of the canal from Delaware city to its intersection with Bush creek, 14 miles; 60 feet wide at top, 36 at bottom, 8 feet deep, 2 lift and 2 tide locks.

No. 4. is a canal of nine miles in length, designed to overcome the rapids of the Susquehanna, near Port Deposit.

Contemplated Improvements.

A rail road from Newcastle to Frenchtown; a rail road from Baltimore to the Susquehanna; and a rail road from Baltimore to Washington city.

STATE OF VIRGINIA.

That portion of my map which comprehends the entire state of Virginia and the adjoining parts of Ma-

ryland, Pennsylvania, Ohio, Kentucky, Tennessee and the two Carolinas, was taken from the large map of Virginia, by Mr. H. Boye, recently published, in conformity to an act of the legislature of Virginia. The whole of this space will be found very different from former representations. I deemed myself particularly fortunate in having the means of rectifying those glaring errors which the new map has exposed, and which have hitherto disfigured all our maps of this important state.

Great attention has evidently been given, by the author of this excellent map, to the geographical land marks. No less than forty-seven points for latitude, and eighteen for longitude, have been fixed in the state of Virginia; and the positions of several conspicuous places have been newly rectified or verified by celestial observations, which give to the state a form and extent essentially different from the old maps. It will be perceived, that the southern boundary of the state is much farther north than was generally supposed, and of course its superficies greatly diminished, and those of North Carolina and Tennessee proportionably augmented.

NEW COUNTIES.

Counties.	*Seats of Justice.*
Allegany,	Covington.
Logan,	
Morgan,	
Pocahontas,	Huntersville

In 1634 Virginia was divided into the eight following counties or shires: Accomack, Charles city, Charles river, Elizabeth city, Henrico, James city, Warwick river, and Warrosquoyoke.

New Towns.

Elizabethtown, Statlerstown, Middletown, Weston, Stebbinsville, Milford, Leedsville, Canaan, Mount Carmel, Middletown, Sandy Settlement, Mount Vernon, Preston Co. Petersburg, Hardy Co. Burlington, Frankfort, Strasburg, Buckletown, Barbus, Bath, Morgan Co. Deep creek, London Bridge, Brandon, Ligon, Planterstown, Buchannan, Newcastle, Covington, Greenway, Lovingston, Scottsville, New Kent cross roads, Negrofoot, Pottiesville, Newtown, Newmarket, Scuffletown, Loyd, Wolftown, Georgetown, Culpeper Co. Flint Hill, New Baltimore, Fayetteville, Elkton, Heathsville, Boyds H., Belleplain, Occoquan, Milford, Luray, Mount Sydney, Mount Crawford, Magaugheytown, Turleytown, Brocks Gap Sett. Mount Pleasant, Georgetown, Shenandoah Co. Bulltown, Summersville, Huntersville, Mount Airy, Neeltown, Barbourville, Lebanon, Dickinsonville, Cape Henry, Marseilles, Competition, Bentleyville, Hairstonville, Monroe, Pittsylvania Co. Lawrencetown, Big Lick, Marysville, Campbell Co. Chickentown, Abbeyville, Clarksville, Haskinton, Tazewell, Whitby, Greensboro, Lawrenceville, Monroe, Southampton Co.

Internal Improvements.

The mixed system of internal improvement, which has been pursued in this state, and the great number of works connected with the subject, actually begun, appear to have had the effect, by dividing the energies that should be united in support of an efficient scheme, of preventing the completion of every work of a public nature. The canal system, although specially patronized by the legislature of Virginia, has not advanced in a degree, bearing a just proportion to the amount expended on it; whilst most other improvements have either languished or been deferred in consequence of this expenditure. Thus are the ample resources of this important state, like those of Pennsylvania, rendered of little avail in the fruitless attempt to do everything at once. In accordance with the plan hitherto pursued, I shall confine my remarks to the former description of works.

No. 1. *James River Canal.* This highly important improvement has for a long time remained stationary, notwithstanding the interests of the country through which it is to pass, would seem to require its early completion. Efforts are however now making to re-commence the work, under circumstances which justify the expectation that it will be prosecuted to a successful termination. The lower section, or that part of the James river canal which commences at Richmond, passes along the left bank of James river, and terminates just above Venture Falls: length 26

miles; course west north-west. The mountain section leaves James river opposite Piney island, pursues the right bank to Cursha w Falls, where the canal crosses James river, and continues its course along the left or north bank, through the Gap of the Blue Ridge, to its junction with the James river, about one mile above Balcony Falls: length 6 miles; general course north-west.

No. 2. *Dismal Swamp Canal.* This long-protracted work is at length nearly completed, and is sufficiently capacious to permit coasting vessels to pass through it, having no where less than six and a half feet of water in depth, and forty feet in width. Two lateral canals, one from Lake Drummond, which, in addition to its uses for purposes of navigation, serves as a feeder to the main trunk, and the other opens a communication between the main canal and the head waters of North-west river. The main canal commences at Deep creek, where a flourishing town of the same name has sprung into existence, pursues nearly a south course through Dismal Swamp to Joyce's creek, a branch of the Pasquotank of Albemarle sound: length 23 miles, 6½ feet deep, 40 feet wide, 6 locks, summit level 16½ feet above the Atlantic at mid-tide. Length of Lake Drummond feeder 5 miles, 16 feet wide, 4½ deep, with a guard gate near the lake. Length of "the North-West canal" 6 miles.

No. 3. *Roanoke Navigation*, is completed from the town of Weldon, in Halifax county, N. C. to

Salem, in Botetourt county, Virginia. This work consists of canal and sluice navigation for batteaux of considerable burthen. It commences at the town of Weldon, situated at the foot of the Great Falls of Roanoke, passes up that river by the towns of Whitby, Haskinton, and Clarksville, to Staunton river; and along the latter, by the towns of Abbeyville, Bentleyville, Hairstonville, Monroe, Lawrencetown, and Big Lick, to Salem: length from Weldon to Salem, 244 miles.

No. 4. *Slate River Navigation.* Some advance has been made in the execution of this work, but in consequence of recent decisions in the court of appeals, affecting the corporate rights of the company, all further proceedings are suspended until those decisions are reversed.

No. 5. is a proposed improvement of the navigation of Rappahannoc river, consisting of canals and slack-water pools; commencing at Lee's mill-dam, and terminating at tide water, one mile below Fredericksburg, distance of 43 miles, and descent 271 feet.

No. 6. is a proposed connection of New river and Roanoke, by the valleys of Little river, a branch of the former, and Meadow creek, a branch of the Roanoke. It is proposed to cross the Alleghany mountain at an elevation of 2078 feet above tide water.

Two other routes have been surveyed, and levels ascertained; one by James and Kanawha rivers, and the other by way of Pattonsburg, Roanoke, and New ri-

ver; but the route No. 6. is considered by far superior to both.

No. 7. *Junction Canal,* unites Staunton or Roanoke river with the Appomattox. It leaves the former at the mouth of the Little Roanoke, passes along its valley to Buckler's branch, where it intersects with a portage of 2¾ miles. At the north end of the portage the canal is re-commenced, and assumes a north-east course along the valley of Buffalo river, which it enters about one mile above the junction of the Buffalo with Appomattox river: length from Staunton river to the Appomattox, including the portage, 44 miles. General course north-east.

The navigation of the Potomac, Monongahela, and Kanawha rivers, has been improved, from which a small revenue is derived. Other improvements are contemplated, but as nothing more than the surveys will be done for some time, a mere enumeration of them is deemed sufficient: viz. Meherrin river from Murfreesboro upwards; Nottoway river from its mouth to the highest point to which navigation may be extended; Roanoke river from Parmill's ferry to the highest point susceptible of navigation, and an examination of the country between that and James river, with a view to connection by canal or rail road; Acquia creek, Occoquan river, Opecon river, and Sleepy creek.

Elevations above tide water of important points in Virginia, deduced from various recent surveys.

	feet.
Columbia, on James river,	178
Scottsville, do.	255
Lynchburg, do.	500
Pattonsburg, do.	806
Covington, do.	1222
Kanawha, below the Great Falls,	641
do at its junction with Ohio river,	535
Salem on Roanoke river,	1002
Alleghany mountain at Second creek,	2596
do near Fork run,	2315
do near Howard's creek,	2758
do near Anthony's creek,	2996
Peaks of Otter,	4250
Thunder Hill (Blue Ridge,)	3348
Warm Spring Rock,	2647
Warm Springs,	1782
Rockfish Gap,	1247
Staunton,	1152
Lexington,	902
Wheeling,	634

STATE OF NORTH CAROLINA.

Except some corrections for longitude in the eastern part of the state, North Carolina is delineated from the map of North and South Carolina, contained in my American Atlas. Macon is the only county created in this state for several years.

Internal Improvements

Have not yet been effected to any extent in North Carolina. The only works existing in this state of which I have any knowledge, are a portion of the Dismal Swamp canal, and Roanoke river improvements, both described under the article Virginia; and some other works of a limited kind and mostly belonging to private individuals. Surveys have been made with a view to a navigable communication between the head waters of Tennessee river, and those of the Savannah; and rail roads from Fayetteville to the Pedee, and from the same to the Neuse, and some other similar works are proposed. The gold region is marked on the map.

STATE OF SOUTH CAROLINA

Is also drawn from the map above mentioned, the South Carolina portion of which was reduced from the excellent state map constructed by Major Wilson, in compliance with an act of the Legislature. Major

Wilson's map is decidedly one of our best and most scientific maps, and was used in correcting the adjoining parts of Georgia and North Carolina. The position of Charleston and some points near the Blue Ridge, are deduced from careful observations for latitude and longitude, taken expressly for the purpose of connecting the district surveys. Two new districts have been created out of Pendleton district,—Pickens and Anderson, in the north-west part of the state.

Internal Improvements.

Some important works have been executed and are now in successful operation in this state. They consist of:—

No. 1. *Santee Canal* connecting the harbour of Charleston with Santee river; it commences at the west branch of Cooper river, and passing along Biggin Swamp, intersects the Santee, at Black Oak Island. Length from west branch to Santee river, 21 miles—general course north-north-west.

No. 2. *Winyaw Canal* from Winyaw Bay to Kinlock creek, a branch of Santee river. Length 6 miles, course south-west.

No. 3. consists of several small canals constructed to overcome the impediments in Saluda and Broad rivers, above the town of Columbia.

The South Carolina Canal and Rail Road Company have in contemplation the construction of a Rail Road

from Charleston by Orangeburg to Hamburg on the Savannah, opposite the town of Augusta: a part of this work near Charleston is now in course of execution. Another Rail Road to intersect the above at or near Orangeburg, to extend to Columbia, is also proposed. The exact routes of these works, cannot be stated; additional surveys are now in progress with a view to their final location.

STATE OF GEORGIA.

Through the polite attention of Governor Forsyth, to whom I addressed a letter requesting information, I was furnished, by the surveyor general of Georgia, with copies of all the recent surveys in that state, including those of the Creek lands; and the boundaries of all the counties organized within the last five years. For the boundary line between Georgia and Alabama, lately run, I am indebted to the friendly attention of Mr. Camak of Milledgeville, one of the commissioners employed in its survey. The entire state, with the exception of the Cherokee lands, is now delineated for the first time on a general map, from actual and accurate surveys, which render this part of my map very complete and satisfactory.

New Counties.

Counties.	*Seats of justice.*
Talliafaro,	Crawfordsville.
Campbell.	

Counties.	*Seats of justice.*
Coweta,	Newman.
Carrol,	Carrolton.
Merriwether.	
Troup,	La Grange.
Talbot.	
Harris,	Hamilton.
Marion.	
Muscogee.	
Lee.	
Randolph.	
Baker,	Byron.
Thomas,	Thomasville.
Lowndes.	
Upson,	Thomastown.
Ware,	Wareboro.
Appling,	Applingville.
Irwin.	
Decatur,	Bainbridge.
Early,	Blakeley.
Dooley,	Berrien.
Houston,	Perry.
Crawford,	Knoxville.
Bibb,	Macon.
Pike,	Zebulon.
Monroe,	Forsyth.
Henry,	M'Donough.
Lafayette,	Fayetteville.
De Kalb,	Decatur.
Gwinnett,	Lawrenceville

Counties.	*Seats of justice.*
Hall,	Gainsville.
Habersham,	Clarksville.
Rabun,	Claytonsville.

A few new towns, in addition to the county seats enumerated above, have been inserted in the map, together with the situation of New Echota, the capital of the Cherokee nation, on the Oostenahla.

Internal Improvements.

A Canal extending from Savannah nearly due west to the Oconee, and several others in various parts of the state, are projected; but little, however, is yet done towards their execution. Several new and important roads will be found in the map.

TERRITORY OF FLORIDA.

Much original matter will be perceived in this portion of the new map; all the government surveys, extending, with but few exceptions, from the Perdido on the west to Suwanee river on the east, and from the 31° of north lat. to the Gulf coast, and upwards of one hundred townships between the Atlantic coast and the Suwanee, being the result of surveys made during the past winter, have been incorporated into the map. To these very important accessions to our geographical knowledge on Florida, with which, seven years since, we were almost entirely unacquainted,

was added a considerable mass of information extracted from the map prepared by Gen. Bernard and others, to illustrate the projected route of the Florida Canal. No section of our country affords an instance of such a rapid development of its physical geography as is presented by Florida. A few years ago all was doubt and conjecture, in regard to this interesting region.

Since Florida became an integral part of the United States in 1821, more information on its geography has been elicited, and generally diffused, than had been done for a century before. Except the mere coast and a portion of West Florida, formerly so called, nothing was known with certainty: hence the great discrepancy between the maps published before the cession, and those of a later date.

The extension of the government surveys over nearly all the northern part of the territory, and the addition of other information, give to the natural features of this section of my map, a permanency, which the settlement of the country cannot materially affect. Additions only will be required where a map is founded on accurate data. To Major Glassell, Indian Agent for the Seminoles, I am indebted for a manuscript map of the country comprehended in his Agency; this map enabled me to improve the course of the Ocklawaha and its tributaries, and to insert many other items of information regarding that section of country.

It will be observed that I have placed the southern

part of Florida in a supplement at the south-east corner of the map. By adopting this arrangement I was enabled to preserve an extensive scale for the map without enlarging its dimensions very greatly. If the point of Florida had not been thus detached, I should have been compelled to increase the size of the map to an unwieldy extent, or to have diminished its scale and of course its usefulness, far below what was desirable. Under every view of the subject, I considered it advisable to detach the part in question, which is unimportant, under a firm persuasion, that its insertion at the expense of so much space or utility, perhaps both combined, would justly be deemed injudicious.

New Counties.

Counties.	*Seats of justice.*
Hamilton,	Miccotown.
Madison.	
Jefferson,	Monticello.
Walton,	Alaqua.
Washington,	Holmes Valley.
Gadsden,	Quincy.
Leon,	Tallahassee.
Alachua,	
Mosquito,	Tomoka.
Monroe,	Key West.

New Towns.

Quincy, Rock Haven, Magnolia, Monticello, Miccotown, Mount Vernon, Apalachicola, Aspalaga, Webbville, Moriana, Alaqua and some others.

INTERNAL IMPROVEMENTS

In this territory are merely prospective. Surveys have been made and routes traced, for the proposed canal across the Peninsula, from the Atlantic to the Gulf of Mexico; these routes are exhibited on my map by dotted lines, the usual mode of representing proposed works. By the profile of the route from St. Mary's to Apalachicola bay, inserted in the map, a very satisfactory view of the surface of the country, is presented.

No. 1. *Apalachicola Route.* The greatest elevation which this line attains, is 217 feet, and was found between the Oclockonne and Oscilla rivers. It leaves St. Mary's river about 3 miles above the town of that name, and pursuing a western course along the valley of the St. Mary's, which it crosses a few miles south-west of Ellicott's mound, enters the marshes of Okefinoke swamp along the ravine of Alligator creek. On leaving the swamp, the canal assumes a S. W. direction and passes through Hamilton county into the valley of Alapaha river, which it follows to the mouth of the Withlacuchee. From this point the canal passes westward parallel with and near to, the great road leading from St. Augustine to Tallahassee, crosses the Oscilla at Evans' ferry, through Jefferson county, and intersects St. Marks river at the new town of Rock Haven. Thence along the valley of St. Marks river, by the towns of Magnolia and St. Marks (old fort), and with James Island Sound, terminates in Apalachicola bay, opposite the town of Apalachicola.

Length from St. Mary's to Apalachicola bay, 250 miles. Greatest altitude 217 feet: general course south-west nearly.

No. 2. *Suwanee Route*, commences at the point of intersection of No. 1. with the Suwanee, pursues the valley of, and unites with that river at the Indian Cow pens, so called, about ten miles above its discharge into the Gulf of Mexico. Length from its intersection with No. 1. to the Cow pens, 75 miles. General course nearly south. Entire length from St. Mary's 185 miles.

No. 3. *Santa Fe Route.* Leaves the St. Mary's at the same point as No. 1.; crosses, in a south-west direction, the Nassau ridge, and passing a few miles west of Jacksonville, enters the ravine of Black creek; thence by Santa Fe pond (which is proposed as a feeder), into the valley of Santa Fe river, which it pursues by the Natural bridge until it unites with No. 2, 17 miles above the Indian Cow pens: length 120 miles. General course from St. Mary's south-west.

No. 4. *St. Johns' route*, commences on the St. Johns, at the mouth of Pablo river, crosses by a direct course the 12 mile swamp, and intersects the St. Johns, opposite the mouth of Black creek; thence along its valley and with the road to Tampa bay, it enters Orange lake, which with Ocklawaha river to the Indian pond, is proposed to be used as a part of the intended communication. From the Indian pond the canal passes, parallel with and near to the road from Tampa bay to St. Augustine, to its inter-

section with Hillsboro river, and thence into Tampa bay, near the United States cantonment: length from the mouth of St. John's river to Tampa bay 225 miles. General course south south-west.

The improvement of the navigation of St. John's river is also contemplated.

STATE OF ALABAMA.

The representation of Alabama was taken from my map of that state, contained in the American Atlas, which was carefully compiled from materials of the most authentic character, consisting chiefly of the public surveys, found in the General Land Office at Washington. These surveys embrace the whole state, with the exception of the Indian lands; its geography may therefore be deemed as permanently fixed, at least so far as its natural features are concerned. The new counties of Dale and Lafayette, together with the altered boundaries of Monroe, Mobile, and some other counties, are inserted. In tracing the subdivisions of Alabama, I have omitted the lines which divide and attach the Creek lands to the several contiguous counties, as contemplated by a recent act of the Legislature, as doubts of the constitutionality of the measure have been suggested. Presuming that some notice of these boundaries may prove acceptable in a work like the present, I subjoin an abstract of the law in relation to this novel proceeding.

The act declares, "that all the territory within the following boundaries, to wit: Beginning on the bank

of Coosa river, at the mouth of Kiamulgee creek, and thence with McIntosh's road to the Georgia line; thence with said line northwardly, to the boundary line between the Creek and Cherokee *nations;* thence westwardly with the said line to the mouth of Will's creek on Coosa; thence down Coosa to the beginning; shall be added to, and form a part of St. Clair county.

"That from the mouth of Kiamulgee creek, down Coosa river to Fort Williams; thence on a direct line to Miller's bend on the Chattahochee; thence with the boundary line of Alabama and Georgia, to the point where it crosses McIntosh's road; thence with said road to the beginning; shall be added to Shelby county.

"That from Fort William down Coosa river to Wetumpkee Falls; thence along the Indian boundary line to the road leading from Pensacola to Lewis' old stand on the Federal road; thence along said road to the Chattahochee river, and all territories north of said line, and not attached to any other county, shall form a part of Montgomery county;" and "That all Indian territories south of said line, shall belong to, and form a part of Pike county." Thus we perceive a fixed determination on the part of the government of Alabama, to extend their laws over the "Creek nation," as the act in question still denominates this unfortunate people.

Internal Improvements.

Some works connected with the internal navigation of the state are contemplated, but as their loca-

tion respectively is not yet definitely fixed, I did not deem it proper to attempt a representation of them on the map. Routes for canals have been surveyed to connect the Tennessee with the Coosa branch of Alabama river; the Tennessee with the Tuscaloosa, and the same with the head waters of Tombeckbe river. These works are justly considered important, inasmuch as they would throw a considerable portion of the trade, which now descends the Tennessee and Mississippi rivers, into the counties below, and open an active intercourse between the northern and southern portions of the state, which the natural barriers of the country have hitherto prevented. The effects of these works are, however, likely to be counteracted, in some measure, by the proposed improvement of the navigation of Tennessee river. Surveys preparatory to the execution of this great work are now in progress. It is designed to overcome by a canal the difficult navigation of the river, at the Muscle Shoals, and is denominated,

The *Muscle Shoal Canal:* it is to commence at Brown's ferry, and extend a distance of 37 miles, to Florence ferry. Farther improvements are contemplated below Florence, but the plan is not yet established.

STATE OF MISSISSIPPI.

This state is also much improved by the addition of all the recent government surveys, including those of the last Chocktaw purchase, and several items of information distributed in the state, among which is the

road from Columbus to Natchez, with the distances corrected and communicated by Mr. Williams, late member of the Senate of the United States from Mississippi, to whom I am indebted for the means of correcting the map of this state, from which I reduced the corresponding part of the present map.

New Counties.

Counties.	*Seats of Justice.*
Copiah,	Gallatin,
Simpson,	Westville,
Hinds,	Mount Salus,
Rankin,	Poindexter,
Madison,	
Yazoo,	
Washington.	New Mexico.

Internal Improvements

Have made but little progress in this state; some canals are spoken of as practicable and useful; one is to connect Bayou Pierre with Pearl river, &c.

STATE OF LOUISIANA.

This interesting section of my map is generally from the American Atlas, but with important additions and corrections. In most of the existing maps of Louisiana, the new parishes are not only omitted altogether, but some of those erected before its admission into the Union are represented in a very confused manner; for example, the parish of St. John is

contained within the proper limits of St. James, St. Charles occupies the place of St. John Baptist, and the German coast that of St. Charles. Jefferson is exhibited as being altogether on the right or south-west bank of the Mississippi, and St. Bernard is made to encroach very greatly on the Parish of Plaquemines. This "labyrinth" as Pinkerton would call it, as well as other glaring errors, was first pointed out to me by Mr. Thomas Seghers, of New Orleans, from whom I received a most valuable communication, regarding the parish boundaries generally, which enabled me to apply the necessary corrections.

NEW PARISHES.

Parishes.	*Principal Towns.*
Claiborne,	
Lafayette,	Moutenville.
Terre Bonne,	
Jefferson,	
West Feliciana,	Jackson.

By the constitution of Louisiana, that state is permanently divided into thirteen counties; these divisions are nearlyobsolete, as all legal proceedings, &c., are made with direct reference to the parish boundaries, which at the formation of the constitution, had become so familiar to the inhabitants, that the new arrangement of counties has almost entirely fallen into disuse, so much so, that many persons who are esteemed intelligent, scarcely know of its existence. The following is a list of those counties, with the parishes into which they are subdivided:—

Counties.	*Parishes.*
Orleans,	Orleans, St. Bernard, Plaquemines, Jefferson.
German coast,	St. Charles, St. John Baptist.
Acadia,	St. James, Ascension.
Point Coupee,	Point Coupee.
Attakapas,	St. Mary, St. Martin, Lafayette.
Opelousas,	St. Landre.
La Fourche,	La Fourche, Interior, Assumption, Terre Bonne.
Iberville,	Iberville, West Baton Rouge,
Natchitoches,	Natchitoches, Claiborne.
Ouachita,	Ouachita,
Concordia,	Concordia.
Rapides,	Rapides, Catahoola. Avoyelles.
Feliciana,	West Feliciana, East Feliciana, East Baton Rouge, St. Helena, St. Tammany, Washington.

New Towns.

Franklinton, Jacksonville, Jackson, seat of justice of West Feliciana, Moutenville, Thibadeauxville, Marksville, Cheneyville, Harrisonburg.

Internal Improvements.

With the exception of some private canals in the vicinity of New Orleans, there are no canals or works of internal improvement of any magnitude, existing in this state. Extensive improvements are however contemplated. Surveys have been made with a view to the construction of a capacious canal from New Orleans to Lake Pontchartrain, a distance of rather more than four miles. The improvement of water courses, and where necessary, the construction of canals, for a navigable communication between New Orleans and Barataria bay; and the magnificent design of draining the public lands bordering on the Mississippi, are spoken of as entirely practicable.

ARKANSAS TERRITORY.

Greater changes, if possible, have taken place in this section of our country, than any yet noticed. By the act of Congress which provided for the organization of this territory, its limits were defined and extended to 23° 04′ 30″ of West longitude from Washington, which by the treaty of 1819 with Spain

was made the line of demarkation between the United States and the then Spanish possessions. Extensive grants of land having been made to portions of the Chocktaw, Chickasaw, and some other tribes of Indians, it was thought expedient to curtail the territory as defined by the act of Congress just mentioned, so as to exclude the Indian population from within the bounds of the territory. A new boundary was accordingly traced, commencing at a point 40 miles due west of the south west angle of the state of Missouri, and running due south to Red river. This line however, still left a considerable portion of the Indian lands within the territory, and in consequence, another line was run in 1828, which forms the present western boundary of the territory. This line commences at the south-west angle of Missouri, and passes in a direct course to Fort Smith on the Arkansas, and thence due south to Red river. The Indian title to lands in the territory, has, with some unimportant exceptions, been entirely extinguished.

In delineating this portion of my map, I availed myself of all the government surveys, which now extend over 15,000 square miles. To these I have added the result of Mr. Nuttal's examination of Arkansas river from its mouth to Fort Smith. The Ozark range of mountains is laid down from Col. Long's map, and from information regarding it derived from other sources; some important roads and the location of several new towns, villages, &c. were inserted in the map, from a valuable communication made by the

late Mr. Conway, delegate in Congress from the territory of Arkansas, altogether presenting a view of this remote quarter infinitely more complete than my scanty materials, at the outset of my work, allowed me to hope for.

New Counties.

Counties.	*Counties.*
Lafayette,	Washington,
Sevier,	Conway,
Crittenden,	Izard.
St. Francis,	

New Towns.

Helena, seat of justice of Philips Co. Davidsonville, Batesville, Mount Prairie, Villemont, Marion, Biscoeville, Crittenden, Clark Co., Washington, and some other small settlements.

Internal Improvements.

The following new roads from Little Rock, the capital of the territory, are traced on the map. To Davidsonville. To Washington and thence to Cantonment Towson. To Monroe and Fort Miro in Louisiana. To Arkansas (or the Post). To Memphis in Tennessee. To Cantonment Gibson by Piattown, Cadron, Point Remu and Crawford Court House. To the Hot Springs of Ouachita, &c.

STATE OF TENNESSEE.

The map of Tennessee in common with those of the other states, has been subjected to a thorough revision. The boundary between this state and Kentucky has been carefully adjusted so as to correspond with Walker's survey and with the corrected position of Cumberland Gap, which by a series of observations for latitude and longitude, was found to be more than twelve miles farther north than it has been usually represented. The line between Tennessee and North Carolina has also been altered so as to conform to the survey of that line by Mr. Stokes and others.

New Counties.

Counties.	*Seats of Justice.*
Fentress,	
Weakly,	Dresden,
Obion,	Troy,
Gibson,	Gibsonport,
Dyer,	Dyersburg,
Haywood,	Harrisburg,
Tipton,	Covington,
McNairy,	Purdy,
Hardiman,	Bolivar,
Lafayette,	Summersville.

In addition to the above seats of justice, which are

mostly new towns, the following have been inserted in the map.

New Towns.

Brownstown, Metcalfboro, Centreville, Hillsboro, Crab Orchard, Oresville, Great Bend Village, Tellico, Athens, Nolensville, Mt. Pleasant, Harpeth, Gideonville, Farmington, Middleburg, Pocahontas, Lionel, Warnerville.

Internal Improvements.

Surveys have been made under a late appropriation of Congress, with a view to the improvement of the navigation of Tennessee river. Others have been made to ascertain the practicability of effecting a navigable communication between the head waters of Hiwassee and Savannah rivers; and also between the Tennessee and Coosa, by the valleys of Lookout and Will's creeks, and by those of the Chickamauga and Little rivers.

STATE OF KENTUCKY,

Is reduced from the map of that state contained in the American Atlas, to which the new counties, &c. were added previous to its reduction. The counties of Callaway, Hickman, Graves, and Mc. Cracken, are all erroneously represented on every map with which I am acquainted, both in extent and relative position. The error originated with myself, owing to a mistake

of the gentleman from whose information I located them originally. For the means of correcting their lines, and adjusting them satisfactorily, I am indebted to Chittenden Lyon, a representative in Congress from Kentucky. The lines of these counties, as well as their relative situation, having been materially altered, I feel justified in classing them under the head of new counties.

NEW COUNTIES.

Counties.	*Seats of Justice.*
Callaway,	Wadesboro,
Hickman,	Columbus,
Graves,	Mayfield,
McCracken,	Wilmington,
Hancock,	
Oldham,	Westport,
Spencer,	Taylorsville,
Meade,	Philadelphia,
Anderson,	
Edmondson,	
Russell,	
Laurel,	
Pike,	Pikeville.

INTERNAL IMPROVEMENTS.

The only work of consequence now in progress in this state, is the canal at the Falls of Ohio, near Louisville. It is designed to overcome the only serious

impediment to the free navigation of that great river. The canal does not exceed three miles in length, but its utility when completed will be incalculable, and cannot fail to reward its enlightened projectors.

STATE OF MISSOURI.

A section of about 30,000 square miles of this state, is delineated from the government surveys. The southern and western boundary lines are also from actual and very accurate surveys, executed by order of the government of the United States. Data for the other parts of the state were sedulously sought for, but except a few items of information regarding local points, extracted from Col. Long's map, I have not been able to procure sufficient materials to afford even a tolerable view of those parts. It must therefore be admitted that the representation of the north-western and south-western quarters of the state is far from being satisfactory. The superior accuracy of the intervening space, and nearly the whole of its eastern side, will, however, compensate in some degree for this deficiency.

New Counties.

Counties.	*Seats of Justice.*
Stoddard,	
Randolph,	
Jackson,	
Marion,	Palmyra.

New Towns.

Farmington, Caledonia, Lawrenceton, Manchester, Point Look-off, Frankfort, Bartonville, Lewiston, Bowlinggreen, Fulton, Lafayette, Liberty, Lexington.

Internal Improvements.

In common with every other part of our country, the subject of internal improvement has received a full share of attention from the people of this remote but important state. Several works are under consideration. The Sioux Portage is proposed to be opened so as to admit the passage of the Mississippi into the Missouri. The distance being scarcely a mile, it is probable that the silent but sure operation of the current of both rivers combined, will ere long render the aid of art unnecessary. All who are familiar with the ground concur in stating that the two rivers are rapidly verging towards each other. Instances of this kind are almost every where found along the Mississippi, where great bends have been deserted by the river and new channels formed by the action of its current. Thus it will be at the point in question, and a new "cut off" present itself perhaps before the project of an artificial cut shall have been fully discussed. Another canal of about 40 miles in length, and one which must affect in some degree injuriously, the commerce of St. Louis, is contemplated to ex-

tend from the Missouri to Maramec river. It is proposed to leave the former about 50 miles above its mouth, pass through the French settlement into and along the valley of the Maramec, to its discharge into the Mississippi. This work when completed will lessen the distance by water, from its point of departure on the Missouri, to the mouth of Maramec river, nearly 70 miles.

STATE OF ILLINOIS.

The changes which the map exhibits in regard to both the geographical and topographical features of this state, are as extensive and important as most others similarly situated. Since the publication of the map of this state included in the American Atlas, the government surveys have been so far completed as to enable me to delineate the streams in a very satisfactory manner. Great additions and alterations will also be observed in the northern part of the state, more particularly in the vicinity of the lead mines in the county absurdly called "Joe Davis." This portion of the state has hitherto presented little more than a blank on nearly all the published maps of that region. By the friendly attention of Mr. S. D. King of Washington city, I was supplied with the necessary materials for this part of the state, consisting of a manuscript map compiled by C. Burdine, Lieut. U. S. Artillery. The Indian country to the north is represented rather differently from other maps. It is gen-

erally from a map in manuscript of the region between Lake Michigan and the Mississippi, drawn and loaned to me by Col. Long.

New Counties.

Counties.	*Seats of Justice.*
Mercer.	
Henry.	
Putnam,	Alexandria.
Peoria,	Peoria.
Knox.	
Warren.	
Hancock.	
M'Donough.	
Adams,	Quincy.
Schuyler,	Rushville.
Calhoun,	Gilead.
Tazewell,	Mackinaw.
Macon,	Decatur.
Vermillion,	Danville.
Shelby,	Shelbyville.
Macoupin.	
Marion,	Salem.
Wabash,	Palmyra.
Perry,	Pinckneyville.

New Towns.

Gilead, Atlas, Quincy, Rushville, Lewistown, Alexandria, Naples, Jacksonville, Sangamon, Deca-

tur, Mackinaw, Hillsboro, Shelbyville, Danville, Waterloo, Covington, Pinckneyville, Equality, Maysville.

Internal Improvements.

A canal about 100 miles in length, is proposed to connect Illinois river with Lake Michigan; to extend from the mouth of Vermillion river, along the valleys of Illinois and Plain rivers, and Chicago creek, to the town of Chicago on Lake Michigan. Some other works of a like description are projected, but the prospect of their execution being remote, a notice of them here is deemed unnecessary.

STATE OF INDIANA.

With the exception of the Indian lands, this state is drawn entirely from the government surveys. The north boundary of the state is now for the first time located according to the results of celestial observations made by order of the government.

This boundary has always been represented nearly six miles too far south. A similar error existed with respect to the head of Lake Michigan, and, of course, in the north line of Ohio; the parallel of which coincides with the southern part of that Lake. These discrepancies have all been adjusted in my new map, and the outlines of Indiana and Ohio, rendered as permanent as the delineation of their physical geography.

New Counties.

Counties.	*Seats of Justice.*
Pike,	Columbia,
Allen,	Wayne,
Vermillion,	Newport,
Warren,	
Carrol,	Delphi,
Cass,	Logansport,
Wabash,	Thorntown,
Tippecanoe,	Lafayette,
Montgomery,	Crawfordsville,
Hancock,	Greenfield,
Hamilton,	Noblesville,
Madison,	Andersonton,
Delaware,	Munseytown,
Hendricks,	Danville,
Johnson,	Franklin,
Bartholomew,	Columbus,
Clay,	Bowlinggreen.

New Towns.

Clinton, Newport, Eugene, Perrysville, Logansport, Wayne, Delphi, Lafayette, Attica, Covington, Thorntown, Crawfordsville, Rockville, Bloomfield, Bowlinggreen, Greencastle, Martinsville, Danville, Strawtown, Winchester, Jacksonville, Noblesville, Greenfield, Port Royal (at the Bluffs on White river), Franklin, Burlington, Columbus, Edinburgh, Newcastle, Shelbyville, Versailles, Greensburg, Rush-

ville, Bedford, Hindoostan, Portersville, Blackford, Rome.

Internal Improvements.

The work of internal improvement, except in the formation of common roads, which have greatly increased, has not yet made much, if any progress in this state; although provision is made for the construction of a canal along the valleys of Wabash and Maumee rivers, designed to intersect the proposed continuation of the Miami canal, at or near the town of Defiance. The length of this work will be 110 miles. Another canal is also projected, to connect the Wabash with the Miami canal, by the ravine of White river. No efficient measures have yet been adopted in regard to the latter canal.

STATE OF OHIO.

No changes of any importance have been made in regard to the natural features of this important state. My former delineations of it were made almost exclusively from the government surveys, which, with but very limited exceptions, embrace the entire state. Whilst we find its physical geography thus permanent, no other state in the union, nor perhaps any district of equal extent in the known world, affords an instance of such rapid increase of population and extension of settlements as this interesting state pre-

sents. As a necessary consequence of this increase of population, towns innumerable have sprung into existence as if by magic. The work of internal improvement is in successful progress. Turnpike and common roads intersect the state in every direction. Seminaries of learning are generally distributed through the country, and every other indication of a prosperous people, is every where conspicuous.

Holmes is the only county erected in this state for several years past. Millersburg is the seat of justice.

New Towns.

Venice, Butler co., Trenton, Newcomb, Alexander, Newbury, Westville, Lisbon, Moscow, Winchester, Jackson, Lucasville, Concord, Yellow Springs, Belbrook, Waynesville, Princeton, Salem, Martinsville, Willis, Hardin, Claridon, Cardington, Bennington, Sunbury, Hebron, Lythopolis, Chester, county seat of Meigs, Coolville, Milville, Mitford, W. Carlisle, Utica, Gambier, Perrysville, Richland Co., Truxville, Greenton, Franklin, Richland Co., Jackson, Fredericksburg, Berlin, Shanesville, Dover, Bolivar, Bethlehem, Dalton, Massillon, Clinton, Stark Co., New Portage, Akron, Union, Greene, Paris, New Garden, Calcutta, Zoar, Dresden, Norwich, Malaga, Jacobstown, New Athens, New Hagerstown, Annapolis, Wellsville, Shalersville, Bloomfield, Williamsfield, Stow, Burton, Tallmadge, Middleburg, Franklin, Portage Co., Boston, Brunswick, Independence,

Strongville, Florence, Milan, Tiffin (county seat of Seneca), Caroline, Melmore, Tyemochte, Bucyrus, Oakler, Seneca, Port Clinton on Portage bay, Defiance, Napoleon, Port Damascus, Amanda, Willshire, and several other places of minor importance.

Internal Improvements.

The "*Ohio Canal,*" extending from Portsmouth, at the intersection of the Scioto with Ohio river, to Cleveland on Lake Erie, is nearly completed. After leaving Portsmouth, the canal crosses the Scioto, and pursues a course nearly due north, along the right bank of that river; passes Chillicothe and enters Circleville, where it re-crosses the Scioto, and continues its route along the valley of the Scioto, to its intersection with the Columbus feeder. Here the canal suddenly turns and pursues an eastern direction, through the towns of Hebron, Newark, Irville, and Coshocton into the valley of Tuscarawas river, which it follows to the summit, after passing through Newcomerstown, Salem, Schoenbrun, New Philadelphia, Bolivar, Massillon, Clinton, &c. On leaving Akron, at the Portage summit, the canal descends the valley of the Cuyahoga, which it follows and terminates at Cleveland : length from Portsmouth to Cleveland, 307 miles; summit level 499 feet above the Ohio at Portsmouth; 305 feet above Lake Erie, and 973 feet above the Atlantic ocean. General course north-east. A profile of this work is inserted in the map.

The *Miami Canal*, now in operation, extends from Cincinnati, on the Ohio river, along the ravines of Mill creek and the Great Miami, to Dayton; passing in its course the towns of Springfield, Hamilton, Middletown, Franklin, and Miamisburg: length from Cincinnati to Dayton, 68 miles. General course north north-east; summit level at Dayton, 175 feet above the Ohio at Cincinnati, and 606 above the Atlantic; as deduced from a continued series of levelling operations from tide water on the Hudson to Lake Erie, and thence to the several points just mentioned.

The Miami canal, it is probable, will be continued ere long, and extended along the valleys of St. Mary's, Au Glaize, and Maumee rivers, to Lake Erie. These great works are the property of the state. Other canals of an important character are projected. Among them is one from the Portage summit of the Ohio canal, along the valleys of Mahoning and Beaver rivers, to intersect the Western division of the Pennsylvania canal. Works for the improvement of the navigation of the Muskingum have been commenced, and are now probably completed. The importance of the former to the commerce of Pennsylvania, must be apparent on an inspection of the map. Much of the produce of the interior which now passes into Lake Erie, and thence into the Erie canal, would find its way into the Pennsylvania canal, and thus at once augment the revenue of the state, and the commerce of its capital.

MICHIGAN TERRITORY.

Nearly one half of this flourishing territory is delineated from the public surveys, which extend from Detroit to Lake Michigan, and from the north boundaries of Ohio and Indiana to Grand river and Saginaw bay. By the aid of Mr. Farmer's excellent map, sent me by Mr. Trowbridge of Detroit, I was enabled to complete my representation of the southern portion of the territory and to trace the county lines with great exactness. Many new towns and villages have been inserted. Dr. Bixby's map of the region about Lake Iroquois, &c. served me for the northern part, including the Islands of Lakes Michigan and Huron.

The eastern shore of Lake Michigan, north of Grand river, is drawn from a manuscript map found in the general land-office at Washington. It includes the recent purchase from the Indians, together with the present boundary line, &c.

Great changes will be perceived in the country bordering on the north line of Indiana. By consulting the recent surveys in Michigan, in connection with the newly ascertained boundary between that territory and the state of Indiana, many improvements were suggested. Alterations in the geography of this part of the country were therefore found necessary. The St. Joseph's of Lake Michigan, being traced from actual survey, assumes an appearance

widely different from all former representations. The head of Lake Michigan, and indeed its configuration generally, presents a new aspect. It is worthy of remark, that the present form of Lake Michigan, so far as it is delineated from the public surveys, corresponds very nearly with the representation of it found in the old French maps, published in the time of Hennepin, Charlevoix, &c. There is, perhaps, no part of our geography which has undergone such vicissitudes in the lapse of time as that under consideration.

In some of the early maps we find Lake Michigan represented as flowing towards the north, in others east-north-east and north-east. In process of time it assumes its proper form and for a short period maintains its position. In the maps, published between 1790 and 1810, this ill-fated lake appears again distorted in a remarkable degree, but in an *opposite direction*. In some of the most recent maps published at a time when access to more correct information could be had without difficulty, we find this region still greatly misrepresented.

The actual surveys and astronomical observations upon which my representation of this region is founded, must give to it a permanent character, at least so far as the southern portion of the Lake and contiguous country are embraced.

NEW COUNTIES.

Counties.	*Seats of Justice.*
Sanillac.	
Saginaw,	Saginaw.

Counties.	*Seats of justice.*
Shiawassee,	Byron.
Washtenaw,	Ann Arbour.
Lenawee,	Tecumseh.
Lapeer.	

New Towns.

Port Lawrence, Bay Settlement, Tecumseh, Ann Arbour, Dexter, Schwarzeburg, Mt. Clemens, Powerville, Cottrellville, Palmer, Millton, Bunceville, Byron, Saginaw, &c.

Internal Improvements.

Although some canals have been proposed, nothing in this branch of improvement has yet been effected. Several new common roads have been made and old ones improved; among the former are the following roads; from Detroit to Chicago, to Saginaw, to Perrysburg, Indiana, to Fort Gratiot, &c.

WESTERN DISTRICTS.

In the entire absence of legislative enactments, regarding the denomination of the western parts of the United States, I have ventured to divide them into districts, assigning to each such an appellation as the Indian tribes found in them respectively suggested. It may be said, that any arrangement of this nature, is the business of the public authorities; this I admit,

but the utility, if not absolute necessity, for something like order in this respect, which the increasing importance of this section of our country demands, and the failure on the part of government, to adjust the the matter, impelled me to adopt an arrangement which I think is calculated to assist the geographer, and to afford definite land marks to the traveller. In every case where it was practicable, natural boundaries were selected, and such as will, most probably, be adopted in the future organization of Territories and States. In order to distinguish the sections embraced in this arrangement, and to avoid the confusion which results from the indiscriminate use of the adjective "territory," as often applied to parts of the unappropriated lands of the United States, a new term was deemed indispensable, and that of "DISTRICT" was selected as most appropriate to those subdivisions, being under the immediate jurisdiction of the United States' government. Although many attempts have been made in Congress, within a few years, to organize new territories in the western region, nothing in this way has yet been effected.

During the session of 1828-29, an act erecting the Territory of Huron, was passed in the representative branch of Congress, but from some cause, probably the unusual extent which the advocates of the measure desired to give the proposed territory, it failed in the senate. The rapid increase of population in the middle section of the contemplated territory, and its re-

mote situation in reference to the seat of government of Michigan, to which it is attached, will soon render necessary the establishment of a separate territorial government, which, with less extensive views on the part of those who are interested in its accomplishment, will, doubtless, be soon effected. In tracing the *District* of Huron on my map, I have excluded a considerable portion of the territory as contemplated by the act of Congress just mentioned, which comprehended not only that part which I have called "Huron District," but also that of Sioux, both together embracing an area of nearly 285,000 square miles. In locating the District of Huron, I have conformed to the boundaries which are likely to be adopted in the erection of the proposed territory. Some abortive efforts have also been made to organize a territorial government west of the Oregon Mountains, but with the exception of the mere change of the name of Columbia river to that of Oregon, no legal measures whatever have been adopted respecting the nomenclature of the regions under consideration: nor is it probable that any movement in regard to the subject will be made by the proper authorities, until its necessity be actually *felt* by those who have the power to apply the remedy. Thus it is, and thus it ever has been in our country: cities, counties, and states, are suffered to reach an advanced stage of maturity, before they receive those definite appellations, which are indispensable in their verbal description.

Our country itself, as a nation, is still DESTITUTE OF A NAME, by which to distinguish it from similar confederacies abroad. We now find "United States" in almost every quarter of the globe—in Europe we see the "United States" of the Ionian Isles—in South America the "United States" of La Plata—in North America the "United States" of Mexico—and lastly our own "United States." Such a multiplicity of "United States," while it exposes the absurdity of the term, as applied in lieu of a proper name, will, it is hoped, induce our government to devise and confer on the country some appropriate appellation by which she may be distinguished, in the rank of nations, from the multitude of "United States" which now perplexes the geographical enquirer, and by which she may cease to be what she now is, emphatically, a NAMELESS COUNTRY.

In addition to the materials I had previously consulted, during the progress of my American Atlas, an account of which is contained in the memoir appended to that work, I have availed myself of all the fresh information regarding the Western Districts generally. Much additional matter relative to Missouri river and the adjacent lands, will be found on my map. This was extracted with great care, from Lewis & Clark's Journal, and does not appear on the map which accompanies that work, nor in any other map that I have consulted. In the northern parts of Mandan and Oregon Districts, numerous improvements will be observed, especially in Clark river and its

branches. Caledonia and Thompson's rivers, discovered by the English traveller, Harmon, are inserted, as well as a reduction of a large manuscript chart of the outlet of Oregon river, exhibiting its bars, banks, soundings, &c. The supplemental map of the country between the Missouri and Pacific Ocean, embracing the Districts of Oregon, Mandan and a part of Osage, although drawn on a reduced scale, exhibits *all* the information now existing on the region brought into view, and accomplishes the primary object of its insertion by affording, in connection with the principal map, A COMPLETE VIEW OF THE ENTIRE TERRITORY OF THE UNITED STATES, *from the Atlantic to the Pacific Ocean.*

Every work which promised any additional information on the country exhibited in this part of my map, has been used. The names of the various Indian tribes, who inhabit this extensive region, with the number of souls attached to each, it will be perceived are distinctly marked, and their relative situations preserved as nearly as possible. The location of several tribes never before given on any map with which I am acquainted, will also be found. Each tribe can be readily distinguished from the others, by the large and conspicuous letters which I have used.

Notwithstanding the difficulties which necessarily attend the construction of maps of a new country, and unpromising as were the data at its commencement for the faithful delineation of the Western Districts, I cannot but indulge the hope that my repre-

sentation of them will be found more perfect, in regard to their general appearance, than any hitherto given to the public.

The following counties have been organized in Huron District.

Counties.	*Seats of justice.*
Chippeway,	Sault St. Mary.
Browne,	Fort Howard.
Crawford,	Prairie Du Chien.

CANADA.

In connecting the materials which I have brought together for this portion of my map, I made use of the survey made by the boundary commissioners under the treaty of Ghent. Their map served as a base, to which the other materials were made to conform. The maps mentioned above, designed to elucidate the boundary question, contain all the recent surveys in Lower Canada. About fifty townships in that province, including those bordering on Chaudiere and Echemin rivers, have been transferred to my map. These surveys, in connexion with Bouchette's improved map and description of Lower Canada, enabled me to present a more perfect and detailed view of the province than has yet been given on a similar scale. The distances from Montreal to Quebec and thence to St. John's in New Brunswick, by the Grand Portage, were extracted with much care from

the tables of Bouchette, which embrace a complete itinerary of that important route.

In addition to many new towns and villages never before located on a general map of the United States, it will be observed that I have inserted, not only the Districts into which Lower Canada is divided, but also its subdivisions into counties, *as they now exist.* The districts and counties of Upper Canada are also introduced into the map. Great changes will be observed in the geographical delineation of Johnstown, Eastern and the new Districts of Ottawa and Bathurst, which were taken from a recent map of those parts of Canada, shewing the route of the Rideau Canal. This map having been constructed by order, and under the immediate inspection, of the commissioners of Internal Navigation, is esteemed a very accurate work, and as such was adopted by me for so much of my map as is embraced within its limits. *The Rideau Canal* is intended to unite the waters of Lake Ontario with Ottawa river. It commences at Kingston on Lake Ontario, pursues a north-eastern direction, through a chain of lakes, with most of which it becomes identified in its course, until it intersects Rideau river. Continuing its route along the banks, and sometimes in the bed of that river, it enters the Ottawa at Bytown, a short distance above the mouth of the former, in north lat. 45° 23′. This highly important work, the existence of which is scarcely known in the United States, is now in active progress, under the direction of a board of commission-

ers, assisted by a corps of the Royal Engineers. Length from Kingston to Bytown on the Ottawa, including the natural navigable courses, 129½ miles; 53 locks, each 33 feet wide and 134 long. Ascent from Kingston to the summit pond, by 19 locks, 165 feet; descent from the summit pond to the Ottawa, by 34 locks 290 feet; total lockage 355 feet. Depression of the Ottawa below Lake Ontario at Kingston, 125 feet; general course north-north-east.

The remainder of Upper Canada, bordering on the Lakes and including the Welland Canal, was taken from Purdy's Map of "Cabotia," so called. Nearly all the surveys that were completed at the time of its construction were incorporated into the map, which with some corrections for latitude and longitude rendered necessary by late observations, was used exclusively for the corresponding parts on my map.

The *Welland Canal* just mentioned, is designed to open a navigable communication between Lakes Erie and Ontario. It leaves the former at Port Maitland, near the mouth of Grand river, crosses the Wainfleet marshes to Chippewa river, and passes along its valley about 10 miles. On leaving the Chippewa, the canal assumes a northern direction, traverses a deep cut, of nearly two miles in extent, and of the mean depth of 45 feet, and after a further course of 8 or 10 miles, enters Lake Ontario at Port Dalhousie, about 9 miles west of Niagara village.

This splendid work, equalled in depth by the Chesapeake and Delaware canal only, is rapidly verg-

ing towards its completion. It admits the passage of the largest vessels that navigate the lakes; the dimensions of the locks north of the mountain ridge, being 22 feet wide, 100 long, and 8 feet deep; those on the south of the ridge, 45 feet in width and 120 in length. Length from Port Maitland to Port Dalhousie 36 miles—34 locks, all descending. Descent 334 feet; general course north-east. A striking change in the general appearance of the region of Lakes Huron and Iroquois, must be observed in the map. While engaged on this part of it, I obtained, through the friendly attention of Dr. Bixby, who was attached to the commission under the Ghent treaty, a copy in manuscript of the map prepared by him for the use of the commissioners in marking the northern boundary line. Dr. Bixby's map afforded the means, not only of correcting and adjusting several important points, which the astronomers, attached to the party, had established; but also to delineate with great exactness the islands, bays, and lakes, of a region comprehending nearly five degrees of longitude and three of latitude: thus, for example, in all the old maps, Cabot's head, which is a conspicuous land mark to persons navigating the lakes, is represented as bearing north 35° east from Fort Gratiot, making a difference of longitude of nearly two degrees, when in fact it was found to be very near the meridian of that fort. The error in the position of this point, affects, of course, much of the contiguous country towards the east, which in consequence was greatly circumscribed in

its east and west direction, and lake Iroquois unduly extended and distorted. The east end of lake Iroquois, Matchadash river, and the north part of lake Simcoe, were taken from actual surveys, copies of which were also communicated by Dr. Bixby, to whom I feel greatly indebted for the interest he has thus manifested towards my work.

For the purpose of augmenting, as much as possible, the utility of the new Map of the United States, I have, although not required by the terms of my prospectus, filled the spaces, which would otherwise have been left blank, with a series of plans, topographical views and diagrams, which will be exceedingly useful in illustrating the topography of interesting local sections. The addition of these involved an expense of money, time and labour, of which none but those who are experimentally acquainted with the difficulty of collecting, combining, and engraving, such minute delineations, can form a just idea. To their insertion, combined with numerous delays in the reception of materials which were deemed essential to the faithful execution of the map, is to be attributed the delay in the publication of the work. It could not have been issued earlier, consistently with a determination on my part, to render the map as perfect as the existing data, and my slender abilities would admit; a consummation most earnestly and sincerely aimed at in every stage of its execution. That I have arrived at complete perfection, I do not pretend; errors will, no doubt, be found: for the future correction of these, I respectfully solicit

communications. Anxious to make the map, in all respects, satisfactory to myself and acceptable to the public, I have permitted no consideration of economy, either of time or money, to interfere in the slightest degree with its execution; nor have I omitted to employ any means which promised to add to my stock of information, requisite for such a work. That I have embodied much original information regarding the United States generally, will, I trust, be admitted by all who shall have directed their attention to the ample materials noticed in this work. In the execution of the map I have endeavoured to select from the great mass of documents collected for the purpose, such only as were founded upon actual surveys and astronomical observations; and in the absence of these the relations of travellers, and other memoranda, which appeared to be of an authentic character, were resorted to. Information regarding the internal improvements of the country, I have endeavoured to collect from every source, and the multitude of works on subjects connected with it, have been freely used; some with great advantage, while others presented little else than masses of crude materials, calculated to perplex and embarrass rather than enlighten the reader. The names of the latter authors are purposely omitted as unworthy of notice, as nothing could with justice be said of them to interest the public, or redound to their own advantage. I cheerfully avail myself of the present occasion to express my deep sense of obligation to the following gentlemen, from whom valuable communications

were received during the progress of this laborious map.

Nathan Hale, of Boston, for permission to use his excellent map of the Eastern States, and for his communication, and report on the Massachusetts rail roads.

N. A. Ware, for his communication regarding the new counties in Maine and New Hampshire and several other states.

S. Davidson King, of the General Land Office at Washington, for copies in manuscript of the map of the boundary line between the United States and British possessions, as fixed by the commissioners, under the 7th article of the treaty of Ghent. This map is drawn on a very extensive scale and occupies no less than 27 large sheets; it forms the base of my representation of the St. Lawrence, Straits of Niagara, and Detroit river. To the friendly and disinterested aid of Mr. King, I am also indebted for copies of all the government surveys in the states of Ohio, Indiana, Illinois, Missouri, Louisiana, Mississippi and Alabama, and in the territories of Florida, Arkansas and Michigan, made and transmitted by him immediately on their arrival at his office.

Simeon Dewitt, surveyor general of New York, for the locations of the new counties and correction of errors in some of the older ones.

Thomas Gordon, of Trenton, N. J. for permission to use his new map of New Jersey, and for his interesting and scientific communication regarding the positions of Philadelphia and New York.

E. Blunt, of N. Y., for his manuscript chart of the coast of Delaware and Maryland.

John Wilson, of Pennsylvania, for his communication regarding the Columbia rail road.

J. M'Ilvaine, for his communication relative to the Pennsylvania canals, &c.

George Armroyd, for his communication regarding the Pennsylvania canals.

H. Boye, author of the new map of Virginia, for his table of altitudes of places in Virginia.

J. P. Stabler, of Sandy Springs, Md., for his sketch of the Dismal Swamp Canal. E. Stabler, for a corrected map of part of Maryland.

Governor Forsyth, of Georgia, for copies of the recent surveys, county lines, and new towns in that state.

James Camak, of Milledgeville, Ga., for his manuscript map of the boundary between Georgia and Alabama, and a communication regarding the geographical position of several important places in Georgia.

Adiel Sherwood, of Georgia, for his communication regarding some of the new counties in that state.

John Lee Williams, of Pensacola, for his communication regarding the county lines and new towns in Florida.

Hector McMill, of Florida, for his communication regarding the physical geography of that territory.

T. M. Glassell, of Florida, for his manuscript map and communication regarding the Seminole lands.

J. McCoy, for his communication regarding the

recent changes of county lines, and the location of some new towns in Alabama.

James Magoffin, of Alabama, for his communication, and manuscript map of a part of that state.

T. W. Mathews, of Alabama, for his manuscript map of a part of that state.

Thos. H. Williams, for his communication regarding some of the roads, &c. of Mississippi.

George Dougherty, for a corrected map and communication regarding the new counties and towns in the state of Mississippi.

Th. Seghers, of New Orleans, for his communication regarding the new parishes in Louisiana.

W. Conway, of Arkansas Territory, for his communication regarding the new counties and towns in that territory.

Newton Cannon, of Harpeth, for his communication regarding the new towns and county lines in Tennessee.

John H. Bills, for his manuscript map of a part of Tennessee.

James W. Palmer, of Lexington, Kentucky, for a corrected map of Kentucky, including all the new counties and towns in that state.

Chittenden Lyon, of Kentucky, for his communication and manuscript map of the western part of Kentucky, with corrections of county lines, new towns, &c.

Richard H. M'Gill, of St. Louis, for a corrected map of Illinois and Missouri, containing the new counties and towns in those states.

J. Farrington, for his communication and corrected map of the bounty lands in Illinois.

John Tipton, of Indiana, for his communication and manuscript map regarding the north part of Indiana.

T. M. Ray, of Indianapoils, for his manuscript map of the new counties and towns in Indiana.

Austin W. Morris, for his communication and corrected map of the state of Indiana, including the new counties, and many new towns, roads, &c.

J. Bush of Indiana, for his communication regarding the new roads in that state.

John Brown, for his communication on the new roads and towns of Indiana.

A. Bourne, of Chillicothe, Ohio, for a corrected map of Ohio, and communication on the Ohio canals, &c.

Mr. Trowbridge, of Detroit, for a map of that territory, with the new counties, towns, &c.

Dr. Bixby, of England, for several manuscript maps of the region of the Lakes, &c.

Other persons, deserving of special notice in this place, and perhaps entitled to my warmest thanks, may have been omitted, not through the want of respect, but of recollection. This I fear may be the case in a few instances, as my account of some of the documents used in the commencement of the work, was drawn up from memory. To *all* who have contributed their aid, I offer my sincere thanks.

SUMMARY

OF THE ORIGINAL MATTER.

From the foregoing remarks and a careful examination of the map, it will be perceived that the New Map of the United States comprehends one hundred and fifty-six New Counties; five hundred and forty New Towns, and upwards of fifteen hundred names of Rivers, Lakes, Bays, &c. not to be found in any similar map; more than 22,000 miles of New Roads, with the distances from place to place distinctly indicated; about 36,000 square miles of territory delineated from recent government surveys, some of them executed within a few months; and 4057 miles of Canals and Rail Roads, the greater part of which has never been traced on a map of the United States. It exhibits the states of Maine, New Hampshire, Vermont, Massachusetts, Connecticut, and Rhode Island, as recently compiled from actual surveys; and those of New Jersey and Virginia entirely remodelled from actual and recent surveys, which have never been incorporated into any other general map; the altitude of nearly 600 important points distributed throughout the United States; and it embodies all the government surveys up to the present time, made in the western states and territories, comprising an aggregate area of more than 310,000 square miles of *actual and accurate surveys.* In addition to these important accessions to our stock of knowledge on the general geography

of the United States, the map contains the following supplementary Maps, Plans, &c.

1 Plan of the City of Boston.
2 New York.
3 Philadelphia.
4 Baltimore.
5 Washington.
6 Charleston.
7 New Orleans.
8 Map of the Environs of Boston.
9 Albany, Saratoga, &c.
10 New York and New Brunswick.
11 Philadelphia and Trenton.
12 Baltimore and Washington.
13 Savannah, Georgia.
14 Pittsburg, Pa.
15 General Map of Oregon and Mandan Districts.
16 Chart of the Outlet of Oregon river.
17 South Part of Florida.
18 Profile of the Grand Portage, Maine.
19 Chesapeake and Delaware Canal.
20 Dismal Swamp Canal.
21 Florida Canal.
22 Erie Canal.
23 Ohio Canal.
24 Morris Canal.
25 Union Canal.
26 Schuylkill Navigation.
27 Pennsylvania Canal.
28 Chesapeake and Ohio Canal.
29 Massachusetts Rail Road.
30 Columbia Rail Road.
31 Baltimore and Ohio Rail Road.
32 Statistical Table of the Western Districts.

33 Statistical Table of the United States, exhibiting the Area; Capital; Metropolis, with its latitude, longitude, and population; date of constitution; time of stated meeting of the Legislature; day of general election; population of 1820 divided into classes, and the estimated population of 1829, of each state and territory of the union.

The plans of cities, will be found exceedingly minute in every particular; they contain, with but few exceptions, all the information found in larger plans: all the names of streets, lanes, public buildings, and every other object of interest usually inserted in such representations, are given.

The topographical maps or views of the environs of the principal cities, are drawn on such scales as to admit the introduction of every town, village and important road, embraced within their respective borders. They contain much information which may with strictness be denominated original, and will be found useful, when viewed in connection with their corresponding parts on the principal map.

The distances from place to place, are noted in every part of the map, and the important leading roads are distinguished from state or more local roads, by appropriate characters.

The profiles or vertical sections constitute one of the most valuable and interesting features of the map. Those numbered from 22 to 31 both inclusive are projected on similar scales; the horizontal scale being the same as that of the principal map, 30 miles to an inch, and the vertical scale 1000 feet to an inch. By this arrangement a just and accurate view is obtained of

the relative extent and altitude of the several parts of those highly important works. They afford a species of information, which is almost indispensable to a clear understanding of matters connected with the great work of internal improvement of our country, which is every where in active progress.

In embodying these sections, I have in no instance made use of documents that were not founded on actual measurements and deduced from levelling operations. In this way I have with considerable labour brought together upwards of six hundred points in various parts of the United States, whose elevations above the Atlantic Ocean are distinctly noted, which as matters of reference cannot fail to prove eminently useful, and will be duly appreciated by all who are aware of the difficulties which attend the acquisition of the necessary data for such diagrams.

When we reflect on the immense labour, which, in the aggregate, must have attended the surveys, upon which our present stock of this sort of information is founded, and the great expense to the state governments and individuals involved in them ; it will, I think, be readily admitted, that the space devoted to the physical sections, on the map, is well appropriated.

Much advantage will result from the general diffusion of this kind of information ; while it affords the very best means of developing the general aspect of the country, it will serve to check those impracticable and frivolous projects which interested speculators are constantly urging on the unwary; it acquaints

us not only with the relative extent and elevations attained by our leading works, but it affords a comprehensive view of the physical structure of the region occupied by the United States, thus leading to a correct knowlege of the great features of our continent, its elevations, depressions, mountain ranges and its valleys.

Another important improvement, which if we regard its extent, is peculiar, not only to the principal map but also to the topographical views, is the indication of the distances from town to town. This is done on *all* the leading roads and most of the common state or cross roads. The labour which attended this part of my work, can scarcely be conceived by persons unacquainted with such matters. Some idea of it may be formed, when I affirm that *the entire map could and would have been completed in less than half the time which was employed in its execution, if the distances had been omitted.* Such an omission, however, would have greatly circumscribed the utility of the map; and as I had determined in the outset to render the work every way deserving the liberal patronage, which early indications led me to expect, I have adhered strictly to that determination to the end.

THE END.

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